



Examining the Views and Opinions of Itinerary Traders on Adherence to COVID-19 Lockdown in Enugu State, Nigeria

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Abstract

The outbreak of COVID-19 caused human activities to be affected in one way or another. As a result, measures were put in place by various national governments to reduce the spread of the virus. This paper examines adherence to COVID-19 guidelines in Nigeria among itinerant traders, using a total of 40 eligible participants from selected local governments in Enugu state, Nigeria. The study adapted purposive sampling techniques to identify eligible participants; while in-depth interview was the method used for data collection. Among other findings, result shows that the control measures rolled out by government were seriously undermined. Nomadic traders, driven by economic gains, played covert role in the spread of the virus. This signalled a weak link in the efforts to curb the spread of the virus in Nigeria. The study contributes to a more exact diagnosis of the weak link in the efforts to contain the spread of the virus and how the quest for economic gains drove the abuse of COVID-19 mitigation protocols with its attendant health implications. It therefore recommends that government should strengthen the institutional capacity for detection and control, and provide the critical infrastructural facilities that will make for intensified surveillance in future epidemic or pandemic outbreak. Economic incentives and the effective monitoring of protocol enforcers saddled with the responsibility of enforcing government directives are also encouraged in order to curb compromise.

Keywords COVID-19 · Interstate movement · Community transmission · Itinerant traders · Compliance

1 Introduction

The outbreak of COVID-19, first in Wuhan China, in December 2019 and its public health designation of international concern by the World Health Organization (WHO) in January 30, 2020, Patel & Jernigan (2020), affected human activities all over the world in one way or the other. Over 7 million confirmed cases and over 400, 000 deaths were recorded across 213 countries and territories within the space of 7 months (Worldmeter 2020). The virus's spread led to the proclamation of lockdowns and restrictions of human activities in many parts of the world, prompting the establishment of different COVID-19 taskforce response teams to implement and ease the lockdowns (Okolie-Osemene 2021). Measures such as ban on interstate travel to curtail the spread of the virus were imposed by the Nigerian government. These measures effectively affected many traders, including nomadic traders whose means of livelihood was dependent on constant movements between and across cities and states. As with many countries, the restriction measures affected the supply chain of many commodities across countries. While the restriction measures lasted, human activities were significantly affected economically, psychologically, as well as in numerous social domains.

Enormous global health and economic crises were witnessed as countries imposed tight restrictions on movements to halt the spread of the virus (Wang et al. 2021). Prior to the outbreak of the COVID-19 pandemic, human population has increasingly become more mobile due to demographic and economic disparities between countries and states (Population Reference Bureau [PRB], 2015). The emergence of globalization and information technology has increased people's access to economic opportunities outside their immediate environment. Indeed, these factors have exposed people to life-changing opportunities outside their own environment which motivate them to move to take advantage of such opportunities (Devillard et al. 2015). In modern times, movements within and across states and countries have increasingly become part of human existence (Castañeda 2017). Certainly, these movements have significantly impacted on the patterns of social integration and interactions in positive ways (Yendaw 2021). However, the COVID-19 pandemic caused enormous global social disruption by limiting global social relations (Amzata et al. 2020). The normal human modes of interactions and communication were seriously undermined. As Amzat and Razum (2018) observe, the idea of social distancing (one of the key control measures of COVID-19) is a negation of the regular social interaction which is the bedrock on which human society is built. The contagious nature of the disease meant that the usual norms of close physical contact were disrupted as the disease transmitted through contact with people who already had the disease. The crisis highlighted the need for urgent action to cushion the health and economic consequences of the pandemic (World Bank [WB], 2020).

The speed of the virus's spread induced countries around the world to shut their land and air borders with embargo on non-essential international flights (Gwee et al. 2021). However, these travel restrictions varied across countries. Nigeria also joined other countries to place a ban on non-essential international flights.

With rapid spread of the virus to various states in the country, federal government announced a total lockdown and a ban on interstate movements in the country. These moves to contain the spread of the virus adversely affected economic activities in the country. The spread of the virus itself compounded the problems in the already worsening Nigerian healthcare system (Eze et al. 2021). The speed of the virus permeation into different countries of the world brought about the downsides of globalization (Amzata et al. 2020). They submit that globalization which indicates the compression of time and space facilitates the transmission of diseases on a global scale. In this perspective, global transmission of diseases became one of the dysfunctions of globalization as distance is no longer a barrier in transmission of diseases. This is evidenced in the swiftness with which the virus spread around the world, including Nigeria. Therefore, travel restriction was a significant step in limiting the spread of the virus. Gwee et al. (2021), however, observe that countries adopted travel restrictions perhaps under political pressure to a large degree than for public health benefits. This is probable considering the absence of pharmaceutical interventions and swelling public pressure against the looming threat of a novel virus (Lee et al. 2020).

The COVID-19 virus was regarded as an intangible foe that did not necessitate the mobilization of security forces by states (Ookeditse 2020). The first COVID-19 case was confirmed in Nigeria on the 27th of February 2020 (Nigeria Centre for Disease Control [NCDC], 2020). The case was an Italian citizen, who worked in Nigeria and returned from Milan, Italy, to Lagos, Nigeria. Subsequent cases emanated from there, although there were later cases from different sources (NCDC 2020). There was contention among experts and analyst that the spread of COVID-19 to Nigeria was preventable because concerns about the spread of the virus were raised in many forums. Eze et al. (2021) note that when the spread became apparent and inevitable, the government did not do enough to contain its further spread. These developments led to more cases and inevitably to a total lockdown of states and ban on interstate movements in Nigeria.

In line with the global practice then, Nigeria announced a nationwide lockdown on March 30, 2020. Despite the lockdown in the country, records of new cases were increasing. This was attributed to community transmission (Ibrahim et al. 2020). Reports in the media suggested that there were couple of lockdown violations across states in Nigeria. The violations were mainly attributed to economic hardship. On the national scale, the lockdown brought a lot of economic adversity in the country. The nation's economy was underperforming, as the lockdown constituted impediments in the circular flow of income (Galeotti and Barry 2020). Individuals' economic fortunes were shrinking; families whose means of sustenance depended on moving across states to sell articles or produce were mostly affected. These categories of traders are itinerant traders. For the purposes of this study, these are categories of traders who do not have any fixed place to conduct their business activities. They move from one location to another along with their goods, especially on fixed market days. Media reports had suggested that there were couple of lockdown violations. These lockdown violations had enormous health implications, as they exacerbated the spread of the virus. Incidentally, NCDC reported that community and interstate transmission was the main source of the spread of the virus in Nigeria.

Nigeria has a poor healthcare system owing to decades of neglect and underfunding. COVID-19 presented a difficult task for the country. Few testing kits were procured by the Nigerian government; even isolation centres were limited in number. These ill-equipped hospitals were charged with the responsibility of an increased health burden.

Due to its deleterious nature, COVID-19 has attracted some scientific engagements in Nigeria (e.g., Amzat et al. 2020; Eze et al. 2021; Nzeadibe & Ejike-Alieji 2020). These studies are very vital as they aid our understanding of some of the contending issues surrounding the virus, especially with respect to Nigeria. This is particularly crucial as the virus threw the Nigerian economy into disarray. The restriction of movements to residential areas impacted several businesses, causing them to claim varying percentages of loss following the phases of lockdown. Despite the above studies, there is, however, paucity of studies that investigates interstate movements amidst COVID-19 lockdown in Nigeria as this postured as a catalyst for interstate transmission. This current study examines the compliance with COVID-19 control protocols among itinerant (nomadic) traders in rural areas of Enugu State, Nigeria. In doing so, it investigates itinerant traders' dispositions to COVID-19, attitude to COVID-19 mitigation protocols, as well as factors militating against the adherence to COVID-19 preventive measures among itinerant traders. The study contributes to a more exact diagnosis of the weak link in the efforts to contain the spread of the virus. It further exposes how the pursuit of economic gains fuelled the abuse of COVID-19 mitigation protocols with its attendant health implications. This appears visible in two facets: how itinerant traders undermined COVID-19 prevention protocols, chiefly, for economic reasons, and how the unprofessionalism of protocol enforcers aided the violation of these measures for economic purposes equally. In doing this, the study offers an insight into the interconnectedness of these incidences and how to mitigate the situation in case of future pandemic or epidemic. This study therefore makes the case that the heightened interstate transmission of the virus as witnessed in Nigeria was mainly a result of unbridled quest for economic gains.

The article is divided into six sections. The first section starts with a brief review of the extant literature and discusses how COVID-19 posed a serious threat to the global economy, and gaps filled and unfilled by related studies. The second section introduces the theoretical foundation. The third section discusses the methods adopted in the study. The fourth section analyses and discusses the results of the study, while the fifth section links the reviewed opportunistic entrepreneur theory to the study. The sixth and last section is the conclusion in which useful recommendations are made.

1.1 Brief Review of Extant Literature

The emergence of COVID-19 posed serious threat to global economy. As a result, it received significant attention from international community, health policy experts and academic researchers, who mainly channelled efforts at understanding the characteristics, causes and impacts of the virus (Ajide et al. 2020a). Consequently, many

of the available studies on COVID-19 focus on mortality, causative factors and prevalence factors, among others. For instance, Wang et al. (2020a, b) focus on the mortality rates across countries. So also is the study by Ferdinand and Nasser (2020). For Altamimi and Ahmed (2020) and Briz-Redón and Serrano-Aroca (2020), climatic factors were the causes of the variation in the spread of the virus. Other studies such as that of Zhao et al. (2020) look at the prevalence and the various control measures adopted by various national governments. In addition, Al-Raddadi et al. (2020) examine the respiratory syndrome associated with the virus. Feldmann et al. (2020) discuss the effects of these lockdowns on Internet traffic shifts.

In Nigeria, studies regarding COVID-19 have emerged, albeit, from different stand points. For instance, Eze et al. (2021) take a look at self-accounting views of health sector corruption in the midst of COVID-19 outbreak in Enugu and Anambra States, Nigeria. Also, Nwozor et al. (2020) discuss the health dangers of the deportation of Almajirai (nomadic Islamic school pupils) from their states as part of efforts to contain COVID-19. Furthermore, Ajide et al. (2020a) investigate the effects of political economy and ethno-religious factors on COVID-19 cases in Nigeria. Ajide et al. (2020b) look at the impact of the lockdown orchestrated by the COVID-19. From the foregoing, it is significant to note that the available studies had mainly focused on understanding the epidemiological and clinical attributes of the virus, the climatic variations in the spread of the virus, mortality rates as experienced across, as well as the impacts on global economy. It is also apt to note that in Nigeria, research has mainly focused on the health implications of the virus and the ethno-religious factors in relation to the attitude of the people and the general impact on the economy. Examining other dimensional factors, such as, the roles of itinerant traders in the interstate transmission of the virus makes this idea unique.

1.2 Theoretical Foundation

The opportunistic entrepreneur theory was adopted in explaining the bones of the present article. This theory was developed by Robert Cressy (1992). The theory moves away from other literature (e.g., Model of Entrepreneurial Choice Under Liquidity Constraints by Evans and Jovanovic, 1989) by outlining a theory of “entrepreneurial opportunism” which enables the individual to obtain a continuous connected series of ventures wherein he decides whether to invest or not. Significant features of the theory as analysed by Cressy are that, one: acceptance and rejection of projects have possible costs as well as returns. Secondly, past experiences of successes and failures provide the basis for learning which products to accept or not. In this context, the opportunistic entrepreneur theory explains how itinerant traders in Enugu State violated lockdown restrictions due to the economic hardships and opportunities occasioned by the restriction. Galeotti and Barry (2020) observe that COVID-19 lockdown attracted enormous economic adversity in Nigeria. This is as a result of the underperformance of the nation’s economy that hindered the circular income flow (Galeotti and Barry 2020). And as the economic fortunes of people were shrinking and the individuals whose means of survival depended on moving across states to sell goods, the itinerant traders explored and utilized the profitability

of trading during the lockdown restriction. For instance, as most businesses were closed, the itinerant traders saw an opportunity to make more profits. Of course, having weighed the cost (for instance, transportation and other logistic challenges that may surface), the trader discovered that the profit outweighed the loss to be encountered. This decision according to the theory will be based on previous experiences which in this case, could be the experiences from trading when markets were temporarily closed (during festive seasons and periods of intercommunal clashes or civil unrest). Under such circumstances, the opportunistic entrepreneur becomes self-centred and unmindful of the social consequences (contracting and spreading of COVID-19) of his actions which would be of great detriment to the population, and is willing to go any length to achieve his goal. “The model takes the form of the derivation of an optimal decision rule over project success probabilities which maximise the entrepreneur’s expected return given his current knowledge” (Cressy 1992, p. 267). The optimal decision rule tells the entrepreneur the projects to accept and which to reject. Therefore, the optimal reservation likelihood is demonstrated to be a direct function of the quality of the entrepreneur’s data (the projects coming his way), and his ability to articulate the exact archetypal, and to update that as information gathers. In addition, the theory demonstrates the ideal reservation probability responds to changes in the observable components of project quality: demand parameters, interest rates and so on (Cressy 1992).

Building on the theory, Ardichvili et al. (2003) examine entrepreneurial opportunity identification and development. In their study, they identify entrepreneur’s “personality traits, social networks, and prior knowledge as antecedents of entrepreneurial alertness to business opportunities” (P, 105). Meanwhile, entrepreneurial alertness, in turn, is an essential requirement for the success of the opportunity identification trio: recognition, development and evaluation. According to them, development process begins when entrepreneurial alertness surpasses a threshold state. Therefore, alertness is probable to be raised when there is a co-occurrence of numerous factors: certain personality traits relevant prior knowledge and experience; and social networks. Inherent in their findings are two cardinal factors: opportunity development and relevant prior knowledge and experiences. These are consistent with the two major assumptions of the theory of opportunistic entrepreneur: acceptance and rejection of projects, which have possible costs as well as returns. Secondly, the past experiences of successes and failures provide the basis for learning which products to accept or not.

2 Methods

2.1 Study Design and Area

The study adopted a qualitative research design, aimed at *gaining* detailed understanding of the process of COVID-19 mitigation protocol violation among itinerant traders in Enugu State, Nigeria. Esterberg (2002) notes that qualitative methods of study are well adapted to identifying attitudes of subjects and the explanations for their behaviours. The study was conducted in Nsukka and Udeno

local government areas of Enugu State, Nigeria. Verbal and informed consent were obtained from each respondent, after having been fully briefed on the study objectives, risks, benefits and steps taken to ensure confidentiality.

2.2 Participants

The study population comprised only itinerant traders. Only participants who met the eligibility criteria for the study were included. Forty traders ($N=40$) were purposefully selected for the study. Prospective participants were approached at their places of residence and their regular meeting points for onward travelling during specific days of the week. Eligible participants who showed interest were selected as part of the study sample. Twenty respondents each were selected from two local government areas (Nsukka and Udenu) in Enugu State, Nigeria. The study also considered gender equity in the selection process. The study population therefore, constituted 23 males and 17 females.

2.3 Data Collection

Individual in-depth interviews (IDI) were conducted in person using structured interview guide. Verbal consent was obtained from the interviewees before the commencement of the IDI sessions. The study was conducted between August and October 2020. An interview guide was specially prepared by the researcher with inputs from experts in the department. The interview guide allowed for sequential probes in order to pursue leads provided by the respondents. The IDI guide covered issues on the participants' knowledge of and their adherence to ban on interstate movements and other COVID-19 mitigation measures during the nationwide lockdown. The guide also covered issues such as strategies adopted to evade the lockdown measures and the enabling factors, among others.

The interview was flexible and interactive in nature. Respondents were encouraged to respond to questions in a narrative account manner. This approach has been described by Pierce (2003) as capable of providing insights into the connection between life experiences with one's social environment. The researcher adopted this approach taking cognizance of the need to be sensitive and non-exploitative of the subjects. Participants were all informed about the aim of the research and were guaranteed anonymity and confidentiality of their responses. Appropriate COVID-19 preventive measures, such as, the use of facemasks, social distancing and the use of hand sanitizer were observed during the interviews. Interviews took place at venue agreed by each respondent. Interviews lasted between 45 to 60 min. After each interview, the interview record of each participant was labelled accordingly (e.g., gender, age and location) to ensure easy identification during data management and analysis processes. The interviews were digitally audio-recorded and later transcribed verbatim. A note taker was always on hand to take notes and moderate each session.

2.4 Data Analysis

The data were analysed using Braun and Clarke's (2006) model of thematic analysis. It is a "model of identifying, analyzing, and reporting patterns (themes) within data" (Braun and Clarke 2006, p. 6). In doing this, themes were identified from reading and rereading the transcripts, noting any similarities and differences between and within participants' accounts. Boyatzis (1998) adds that thematic analysis also goes further to interpret the various aspect of the research topic. Qualitative computer package (Nvivo 11, QSR) was used to organize and assist in the task of first level analysis. Responses were further categorized within relevant themes.

2.5 Ethical Declaration

In accordance with the National Health Research Ethics committee (NHREC, 2020), ethical approval was gotten from ethical committee of the University of Nigeria, Nsukka. Also, informed assent was properly gotten from all members included within the study.

3 Results

The accounts of the respondents contain a number of views and experiences with interstate movements amidst COVID lockdown in Nigeria. From these narratives, the following themes were generated: Mitigation Protocols and Itinerant Traders; Movement Patterns Adopted and the Enabling Factors; and Economic Hardship and Movements amidst COVID-19 Lockdown.

3.1 Demographic Characteristic

Result of the study showed that more males [N=23, 57.5%] participated in the study than females [N=17, 42.5%]. It was never planned to include more males in the study than females. However, it appeared that more male itinerant traders were available for selection, although the difference was minimal. Result also showed that majority of the participants [N=28, 70%] were between the ages of 35–50 years. Secondary school certificate holders [N=33, 82.5%] constituted the majority of the population. [N=07, 17.5%] were primary school certificate holders. Most of the respondents [N=34, 85%] were married while [N=6, 15%] were single.

3.2 Mitigation Protocols and Itinerant Traders

3.2.1 Adherence to Lockdown Order

The study investigated adherence to COVID-19 mitigation protocol among a group of traders (itinerant traders). Their knowledge and experiences of violation of COVID-19 mitigation measures were explored. The essence of this was to identify

the loopholes in the effort to curb the spread of the virus, reasons for violating lockdown rules, possible implications and the points for remediation. Result showed that the respondents acknowledged a little or no compliance with the containment measures put forward to reduce the rate of the virus spread. Indeed, they averred they were involved in acts that violated the process. The following narrative by a respondent captures this point:

I never intended obeying the lockdown measures. I only did it for the first two weeks after which I found a way to continue my trade. I moved to the places I want to carry out my trade. Besides, I never truly believed in whole story about the COVID-19. I always have this feeling in me that it is just another way that our government wants to use and take away our money. This made me not obey the lockdown order imposed by the government (**PP12, 36-year-old male trader, Udenu**).

Similarly, another respondent states thus:

I was worried about my business and how to make sales until my brother travelled back home all the way from Anambra without much hitch. With this I was convinced that I can travel to other places too, and indeed, I did. Funny enough, I met other traders who had been disrespectful to the lockdown order. This further affirmed my conviction that the virus might not actually be here. We formed a kind of group and we keep our secrets with us. At a time, it appeared to us as if there was no ban on interstate movement because we could barely notice the difference in our various journeys (**PP25, 40-year-old male trader, Nsukka**).

Going further, but from slightly a different narrative, a participant confirmed that even though she did not move across states, her experiences with her customers who contacted and traced her to her location through mobile phone made her conclude that interstate movements were actually possible despite the lockdown. She explains:

I did not travel much during the lockdown but some of my customers came from Onitsha and Ebonyi to patronize me. In the course of our discussion, I realized that they did not have much hassles travelling down here. In fact, they confided in me that in the same manner, they visit other nearby states to either sell or purchase goods (**PP5, 38-year-old female trader, Udenu**).

The lockdown was a state response to the pandemic. It witnessed different levels of compliance and cooperation of the citizens as they were affected. The above narrative indicated that this category of traders failed to comply with the lockdown rules, thereby creating room for interstate transmission of the virus. As extract from the quotes showed, many of the respondent, due to their easy access to the roads despite the lockdown, at a time had to think that COVID-19 did not really exist. This sort of attitude and belief undermines the efforts of the government and other non-governmental organizations to reduce the risk posed by the virus. These narratives further gave credence to the theoretical guide (opportunistic entrepreneur) of this work. These traders disregarded the COVID -19 the lockdown order in order to

achieve their selfish financial gains at the detriment of the collective well-being of the people. This act is characteristics of the opportunistic entrepreneur, who is willing to go any length to achieve his goals, irrespective of the social implications of his actions.

3.2.2 Non-Compliance with Social Distancing Measures

In a similar way, not only did the participants intimated that they did not comply with the lockdown order, they equally disclosed that they did not pay attention to other containment measures (e.g., social distancing, the compulsory wearing of facemasks and the use of hand sanitizers) rolled out by the government to contain the spread of the virus. This further highlights the attitude of the opportunistic entrepreneur, who cares more about their potential profits than the social consequences of their actions. At this point, the mitigation measures became secondary, while his financial gains were paramount. This sort of attitude led some to develop false perception of the virus. Some of them explained that they did not actually believe that the virus was contagious in the manner in which it was portrayed. While to some, the virus did not really exist in Nigeria. The following narrative explains more:

When it come to that one (*social distancing*), we did not observe that at all. In one bus, we used to be up to 16 or 18. We will be compressed in such a way that we even found it difficult to stretch our legs and hands. This was happening because not many buses were available. In many occasions, the heat we generate inside the bus is such that sweat will be falling off someone's body and dropping on another (**PP8, 42-year-old male trader, Nsukka**).

In a similar tone, another participant noted that wearing of facemask was not primary on their agenda. He states thus:

Facemask did not really matter. Though we had it in our bag or pocket in case the need to wear it arise. Some will even put it on but will drag it down to their jaws. The truth is that most of us did not really believe that this virus is real in Nigeria. We use to argue in the bus that if this is real in Nigeria, why is that we have not seen any person who has the virus. We only hear about it on the news. But in other countries like USA or Germany, we hear and watch on television people who are infected with the virus (**PP19, 44-year-old male trader, Udenu**).

Imperative in the above narratives was that the measures rolled out by government were seriously undermined. Government campaigns and jingles through different platforms did not dissuade people from engaging in risky health behaviours. This made a strong case for community and interstate transmission of the virus. Such movements constituted prospective confluents to snowball to community and interstate transmission of the virus which portended a great health challenge given the poor health system in the country. In the spirit of entrepreneurial opportunism and the economic gains associated with these movements, these traders ignored the lockdown order, so as to continue with their profitable business, irrespective of

the health implications. These movements further highlight the argument of Nwozor et al. (2020) that Nigeria lacked the infrastructural facilities to aid compliance with the COVID-19 preventive measures. The lockdown violations and the resolve to undertake the inherent risk involved were analogous to weighing of “cost and benefits” by itinerant traders, which is a strand of the argument of the opportunistic entrepreneur theory. Having calculated that the benefit accruing from their actions outweighed the risk, the itinerant traders were determined to take the risk regardless of the consequences. In this way, their actions support the opportunity entrepreneur theory which provides that acceptance and rejection of projects are influenced by possible costs as well as returns.

3.3 Movement Patterns Adopted and the Enabling Factors

3.3.1 Patterns of Movement

As has been demonstrated from the interpretation and analysis of the opportunistic entrepreneur theory, the opportunistic entrepreneur is willing to go any length to achieve his personal goals. He is calculative, and once he spots an opportunity, he is willing to grab it using every means available to him. Such trait was exhibited by these itinerant traders. Unlike what was obtained prior to COVID-19, the patterns and dimension of movement changed with the advent of the virus and the subsequent ban on interstate movement across the country. Participant affirmed that they changed from plying the popular highways to what they called “local routes” that connect many communities and states. Through this means, they evaded the high scrutiny and the “overbearing attitude” of the government special task force on COVID-19 in some major roads. Though this might necessarily delay or elongate the journey; for these participants, the risk and the discomfort therein were worth it as long as they accomplished their goal. A participant notes thus:

Many people were wondering how we managed to embark on these journeys on and on without problems. The truth is that under normal circumstances, we used to follow all these popular highways because it is safer and closer to most of our usual destinations. But with the lockdown and the need for us to continue with our trades, we changed to local routes with bad roads where many eyes will not be cast and where there are less security agents to disturb our movements (**PP3, 50-year-old female trader, Nsukka**).

In the same way, another respondent narrates thus:

We avoided the highways because there are many security checkpoints out there which will pose a big challenge to us. So, our best option was to use the local routes to get to our destinations. We searched for drivers that knows these routes and are willing to take the risk involved. It does not mean that there were no security checkpoints in some of these roads; but we found a way to manage the situation (**PP13, 46-year-old male trader, Nsukka**).

Another participant also responds that:

The roads were very risky and rough but it appeared at the moment to be our only viable option. Some time, a journey that will ordinarily take about two hours, you will end up spending about five hours or more on the road (**PP22, 30-year-old male trader, Udenu**).

3.3.2 Ban on Interstate Movements and the Roles of Protocol Enforcers

When nationwide lockdown and ban on interstate movements as a result of COVID-19 outbreak was announced by the Nigerian government, all arms of the security outfits in the country were mandated to ensure total compliance to this order. However, evidence from the respondents showed that the movements by these itinerant traders across the various states to make sales or purchase goods would not have been totally possible without compromises on the part of some security agents saddled with the responsibility of ensuring total compliance with the lockdown order. This presents a classic case of what Cressy (1992) identifies as one of the characteristics of the opportunistic entrepreneur—the ability to gather information and spot opportunities. Invariably, they gathered information that some protocol enforcers can be compromised, and therefore, they capitalized on this perceived loophole knowing that whatever the financial implication of this compromise would be, the potential profits from their possible sales outweighed it. This therefore demonstrates that entrepreneurial alertness is an essential requirement for the success of the opportunity identification. Also, the quality of the entrepreneur's data (the projects coming his way) and his ability to articulate and work on it are the keys to his success. As some of participants opine, there was an amount each vehicle was to sacrifice before access to continue the journey could be granted. One of the respondents narrates this experience in this way:

Yes, we were going about our business during the lockdown but it did not come without a price. At many of the checkpoints in these local routes, we already know the amount to be given by the driver. Anything less than the price, your vehicle will be turned back or delayed. That is why the transport fare was usually high. It continues like that till we get to our destination and the process is almost repeated on the way back (**PP29, 40-year-old female trader, Nsukka**).

Another participant whose views support the above narratives, added thus:

We spend a lot of money on transport fare as drivers use part of the money to settle some agents on the way. In some communities, the youths having noticed how some protocol enforcers are settled, formed their own group and started to tax motorists at the entrance and exit of their communities. A lot of money is spent in the process and these people (*protocol enforcers and village youths*) are not interested in whether you are adhering to the measures to contain the virus or not. They are only interested in the money they will collect from you (**PP7, 35-year-old male trader, Udenu**).

It is evidently clear that another form of corruption was activated within the lockdown period. In the midst of a pandemic, when nations of the world were busy struggling on how to contain the spread of the virus, in Nigeria, those who were saddled with the responsibility of ensuring that the lockdown order was maintained were in a way aiding the spread of the virus. That was why the weakness of the protocol enforcers created an avenue for money making for this category of traders (itinerants), who capitalized on this weakness. Such is the trait and attitude of opportunistic entrepreneurs.

3.4 Economic Hardship and Movements amidst COVID-19 Lockdown

As has been established, these traders sported opportunities and utilized them irrespective of the means and circumstances, thereby exhibiting the traits of opportunistic entrepreneur. Meanwhile, interpretation of the responses of the participants further revealed that a significant number of them mentioned that people of their socio-economic group were hard hit as a result of job or financial loss orchestrated by the COVID-19 lockdown. The level of labour market detachment resonated the question about who got caught up with the COVID-19-induced economic hardship. Although this was not the only factor adduced by the respondents, this was apparent as some of the respondents submitted that instantaneous income loss was the major factor behind their decision to move amidst the lockdown. For them, they needed to find a means to carter for their families as their incomes were gradually shrinking. This line of thought is captured in the following narrative:

After the first few weeks of the lockdown, I could not bear the hardship any longer. My money was seriously going down and nothing was coming in terms of income. I could not stand and watch my children complain of hunger. So, there was a need for me to violate the lockdown order when the opportunity presented itself. After all, the government did not make any provision to cushion the effect of the lockdown which they proclaimed (**PP34, 50-year-old female trader, Nsukka**).

In a related manner, a respondent affirms that he had no remorse violating the lockdown order. According to him:

I am not ashamed or afraid to tell you that I comply with the lockdown or stay at home order. They (*government*) expected us to stay at home on empty stomach. That is not possible. They provided us with nothing and expected us to stay home just like that. Every time the government talks about palliatives! Palliative! on radio and television. But I did not receive any palliative from the government; neither did I see anybody that was given. For me, the idea of staying at home for two months, three months or more is not possible for me (**PP20, 32-year-old male trader, Udenu**).

Similarly, a 47-year-old female trader from Udenu emphasizes thus:

How can you expect a family person to stay at home without any provisions? All along, we were thinking that the government was going to give

us something to stay at home with but it did not happen. Some countries that placed ban on movement provided something for their citizenry. The moment I realized that we were alone in the race, I quickly looked for a way out of the milieue before my children will die of hunger. **(PP10, 47-year-old female trader, Udenu).**

Unarguably, the economic crisis orchestrated by COVID-19 was unparalleled in its measure and warranted the breaking of the safety measures instituted by the government. However, the relegation of the law and the containment measures, especially in the manner in which the traders described, defeated the argument of economic hardship taking into consideration the contagious and deadly nature of the virus. The actions of the traders were a depiction of the character of the opportunistic entrepreneur. Besides, many of them intimated that the lockdown presented an opportunity for them. Therefore, as countries and businesses were counting their losses resulting from the outbreak of corona virus and the subsequent lockdown, it presented opportunity for certain group of traders, especially cheapjacks. These are merchants or salesmen who are presumed to peddle cheap or poor quality wares. It presented an opportunity for them because those businesses operating within the formal economy were locked up, living potential buyers with little or no option. A participant explains further:

After the first few weeks of staying at home, I decided that this might be an opportunity to make money for myself. When I started moving about, I suddenly realized that I was making sales more than I used to prior to the covid-19 outbreak. Even my old stocks that have stayed for months which people reject on the bases that they were inferior or old fashioned were sold out at higher prices. I don't think this is right but, at some point, I wished that the lockdown continued **(PP31, 49-year-old male trader, Nsukka).**

Supporting this, another respondent notes:

Due to limited number of sellers and opened shops, most buyers were willing to buy your goods no matter the quality. I used the opportunity to sell off my wares that were formally regarded as inferior. It's one of the best opportunities I have had to make money. Even though drivers were charging us very high for the transport fare, I did not bother much because at the end of the day, I will cover up for the loss **(PP8, 38-year-old male trader, Udenu).**

Echoing the same thing, a 43-year-old female trader from Udenu also said that “the period of lockdown was more of a blessing to me because I made good profits.” The above narrative illustrates the character of the opportunistic entrepreneur—sporting opportunities and utilizing them no matter the circumstances. Also, the popular mantra, “different strokes for different folks” manifested in the narrative. As some people were counting their losses as a result of the lockdown, some made a fortune out of it. Thus, as there was reduction in the economic fortunes of people, the itinerant traders weighed and utilized the profitability of trading during the lockdown.

4 Discussion

Using a qualitative approach, the study examined adherence to COVID-19 mitigation measures among itinerant traders in Enugu State Nigeria. While adapting qualitative approach, the study aligned itself with the position of Lopez (2012), who notes that because of their non-judgmental nature, social science interviews offer the room for individuals to give account of their circumstances without threat of consequences. Under this circumstance, people are allowed to speak freely for themselves and their voices are valued. Findings of this study showed that the ban on interstate movements instituted by government to curb the spread of COVID-19 was circumvented by many nomadic traders and commercial drivers who saw the lockdown as an opportunity for economic gains. Many interstate commercial bus drivers bribed their ways through the different checkpoints mounted by protocol enforcers across the country. This finding is consistent with those of Ezeibe et al. (2020), Olayemi (2020) and Ahon et al. (2020) which report that members of the taskforces saddled with the responsibility of enforcing lockdown were discovered to be engaging in corrupt practices by going so far as to arrest, and punish defaulters for refusing to cooperate by offering bribes. This undermined the efforts to contain the spread of the virus and created room for the transmission of the virus within and across states. In addition, ineffective implementation and monitoring of travel restrictions compromised the goal of stopping the pandemic's rapid spread. Okolie-Osemene (2021) reports that the failure of the security personnel to halt vehicular movements from one state to another, created room for COVID-19 to be transmitted across states. Equally, an online newspaper (Punch, 2020, 31st May) published an editorial which notes that there was apparent evidence that the ban on interstate movements was violated by many commercial bus drivers and commuters that bribed their way through. The implication was that due to lack of professionalism by some protocol enforcers, defaulters got away with it as they bribed the individuals implementing the law. People who left their homes, therefore, were exposed to the risk of bribing the security operatives (Omaka-Amari et al. 2020). This jeopardized the efforts to contain the virus spread and further highlighted the willingness of some people to take up risky adventures for financial gains, irrespective of the public health implications.

Finding also showed that there was a blatant non-compliance with the social distancing, mask wearing and other personal hygiene measures put forward by the government to curb the spread of the virus. COVID-19 spread from person to person through close contact. And notwithstanding the guidelines from Nigeria Centers for Disease Control (NCDC), which recommended for instance: the compulsory use of facemasks and social distancing, many of the respondents confirmed their non-compliance with these mitigation procedures. This non-compliance with the COVID-19 mitigation measures was found elsewhere. For instance, Ritter and Brennan (2020) report that only a third of Americans wore a mask outside. Lehmann and Lehmann (2020, p. 2814) depict that there were many reasons people elected not to wear a mask. These included among others the belief that

“masks are only needed if you have COVID-19, and a lack of symptoms precludes one from needing to wear one.” Regardless of the reasons for refusing to wear a facemask or adhering to the other mitigation measures, it is crucial to note that doing so significantly reduced the risk of infection and transmission of the virus (Lehmann & Lehmann 2020; Wang et al 2020a, b). For instance, Chu et al. (2020) note that the possibility of infection when wearing a facemask was 3% compared to 17% without a mask. Also, Lyu and Wehby (2020) observe that states that recommended the mandatory use of facemasks in public had appreciably, larger decline in COVID-19 growth rates post mandates compared to the states that did not mandate a compulsory use of facemask. Those who refused to wear a mask posed a substantial danger to others (Klompas 2020). It is evident therefore, that the non-compliance with these guidelines enhanced the spread of the corona virus and shot up the number of COVID-19 cases in Nigeria. Interstate movements created room for community transmission of the disease as there were asymptomatic carriers. This effectively negated the essence of the lockdown. And the revelation by Nigeria’s Minister of Health that about 979 persons died of COVID-19 in Kano in April 2020 (Oyero 2020), threw more light on the dangers of community transmission (Nwozor et al 2020). These non-essential movements by these itinerant traders significantly increased the chances of the virus transmission and compounded the problems of contact tracing in the country, which was ineffective, and complicated the chances of reasonable containment of community and interstate transmission.

In order to avoid much scrutiny and possible arrest, itinerant traders along with commercial bus drivers devised new strategies for movement. Roads that were dreaded prior to the outbreak of COVID-19 suddenly became priced assets due to ban on interstate movements. This highlighted the extent people can go and the level of risk they can take in order to accomplish personal goals (economic gains). Even in the middle of public health emergency of grave concern, people still elected to violate orders made to safeguard their lives. This finding is consistent with those of other researchers (e.g., Onwuazombe 2017; Akinwale 2019) that report how some persons were willing to take risks, and circumvent the law, even in times of great danger and peril. This risky health behaviour was facilitated by those who were supposed to ensure total compliance with the COVID-19 restriction measures by collecting enticements from commercial bus drivers. As Okolie-Osemene (2021) and Agbakwuru (2020) observe, security agencies failed to enforce the restriction of movements imposed by the government as many commercial bus drivers bribed their way through different check points. The security agents deployed to enforce the lockdown included the police, the Nigeria Security and Civil Defense Corps and the soldiers. These shortcomings on the part of some security agents played a crucial role in the transmission of the virus as these traders were potential carriers of the virus and in effect, posed a threat to the receiving states or communities. This helped to show some of the lapses in the security architecture of the country and further supported the argument of Nwozor et al. (2020) that Nigeria lacked the infrastructural facilities to aid compliance with preventive measures. Driven by the potential economic gains, these traders are unmindful of the health implications of their actions.

Furthermore, the study discovered that economic lack—orchestrated by the lockdown, played a significant role in the decision to undermine the lockdown order. Respondents complained that they were economically affected by the COVID-19 pandemic. In the effort to sustain themselves and their dependents, they had to indulge in risky health behaviour. This finding is in line with the finding of Wittevena and Velthorst (2020) which also note that evident abound of COVID-19-induced economic hardship in many places; its economic effect manifested almost immediately after the initial outbreak of the pandemic. Subsequently, labour markets were affected by government-imposed lockdowns. As most of the respondents stated, when their hopes were dashed by the inability of the government to make provisions for them to cushion the effects of the lockdown orchestrated hardship, they had to device means to survive and take care of their families. This, however, put a question mark on the role played by the government to alleviate the economic hardship the populace faced amidst the lockdown. Apparently, there were no plans on ground by the government to cushion the effects of the COVID-19-induced hardship which contributed to the desire to undermine the lockdown.

However, this does not suggest that violation of the lockdown order was welcome. The lockdown was put forward in the first place with the public health at heart, considering the contagious and dangerous nature of the virus. The argument for economic hardship could not, however, hold firmly given that a significant number of the respondents expressed, in the course of the interviews, their disbelief in the existence of the virus in Nigeria. On the other hand, some disclosed that the lockdown created an economic opportunity for them, hence their decision to undermine the COVID-19 guidelines. In effect, some respondents intimated that even in the course of their journeys, they did not comply with the COVID-19 protocols, such as, social distancing, the compulsory wearing of facemasks and the regular washing of hands, among others.

4.1 Linking Opportunistic Entrepreneur Theory to the Findings

Findings of this study ratify the two core tenets of Cressy's opportunistic entrepreneur theory: the acceptance and rejection of business ventures based on possible costs as well as return and the acceptance or rejection of business venture on the basis of past experience of successes or failures. This current study extends the debate of the opportunistic entrepreneur theory from the stand point of these two tenets as follows:

4.1.1 Adherence to Lockdown Order

The IDI excerpt pointedly noted that the initial adherence to the lockdown by traders was interpreted as non-profitable business-wise. More so, continuous doubt in the authenticity of the virus opened the way for devising new means of transacting business while the lockdown lasted (see: **PP12, 36-year-old male trader, Udenu**). This was further accentuated with accounts of people travelling across states without many hitches (see: **PP25, 40-year-old male trader, Nsukka**). In this light, this

study aligns with Ardichvili et al. (2003) in affirming Cressy's opportunistic entrepreneur theory on the grounds that social networks and prior knowledge are both antecedents of entrepreneurial alertness to business opportunities, the extent of risk notwithstanding.

4.1.2 Non-Compliance with Social Distancing Measures

Respondents recounted blatant flouting of COVID-19 mitigation measures, such as social distancing (see: **PP8, 42-year-old male trader, Nsukka**) or the wearing of facemasks (see: **PP19, 44-year-old male trader, Udenu**). On the basis of the opportunistic entrepreneur theory, flouting COVID-19 mitigation measures were all business risk associated with an expected profitable return.

4.1.3 Patterns of Movement

Respondents opted for the risk of plying bad roads with minimal security (see: **PP3, 50-year-old female trader, Nsukka; PP13, 46-year-old male trader, Nsukka** and **PP22, 30-year-old male trader, Udenu**). The choice of the risk had been properly juxtaposed with its expected reward by the itinerant traders, and the reward outweighed the possible consequences in their own calculation indices.

4.1.4 Ban on Interstate Movements and the Roles of Protocol Enforcers

The summit of the submission of this study in connection with Cressy's opportunistic entrepreneur theory and drawing for the IDI responses is that itinerant traders were most willing to violate the COVID-19 lockdown order and other various mitigation strategies by the government when the opportunity presented itself for business profits. This was done despite the financial cost attached to it (see: **PP29, 40-year-old female trader, Nsukka; PP7, 35-year-old male trader, Udenu**).

4.1.5 Economic Hardship and Movements amidst COVID-19 Lockdown

Drawing from the opportunistic entrepreneur theory, respondents were more willing to defy fear of death through COVID-19 than death through basic biological need—hunger. This was especially so, since the government did not live up to their responsibility to provide palliatives to the people (see: **PP34, 50-year-old female trader, Nsukka; PP20, 32-year-old male trader, Udenu; PP10, 47-year-old female trader, Udenu**). Man's natural drive in this context further propagated the Robert Cressy's opportunistic entrepreneur theory occasioned by the itinerant traders, since most formal business outlets were under lock and key. The profitability of trading at the period informed the choice for the lockdown to last even longer (see: **PP31, 49-year-old male trader, Nsukka**), despite the high cost of trading at those period (see: **PP8, 38-year-old male trader, Udenu**). Thus, in line with Cressy's theory, the lockdown became the new business risk necessitated by economic hardship at the period which created demand and supply chain.

5 Conclusion and Policy Recommendations

This study examined adherence to COVID-19 control measures among itinerant traders in Enugu State, Nigeria, during the COVID-19 instigated lockdown. The need to curb the transmission of COVID-19 and decrease its health risk necessitated the lockdown. From the findings, it is clear that COVID-19 control measures rolled out by the government to curb the spread of the virus were seriously undermined by this category of traders. These itinerant traders, which contribute a significant portion to the Nigerian economy, played a covert role in the transmission of the virus in Nigeria as they failed to comply with the mitigation measures. This “no-adherence” was made even more possible by the unprofessional attitude of some protocol enforcers who were supposed to ensure strict compliance with guidelines. It therefore, highlights how those entrusted with public safety significantly helped to undermine it. Overall, the findings improve our understanding of the various means of the transmission of the virus in Nigeria, the role of potential economic gains and incentives, as well as the too many challenges orchestrated by the COVID-19 pandemic. And furthermore, it advances the point that the heightened interstate transmission of the virus as witnessed in Nigeria was chiefly a result of uncontrolled quest for economic gains.

Based on the findings of this study, it recommends that government should strengthen the institutional capacity for detection and control, and provide the critical infrastructural facilities to enable intensified surveillance in case of future outbreak of this nature. In addition, the effective monitoring of agents saddled with the responsibility of enforcing government directives should be done by appropriate body, as evidence suggested that they undermined government efforts to contain the virus. Law enforcement agencies have lots of task to do in terms of reforms, especially in areas of overall security education and health sector security, as they play critical roles in national development. Furthermore, in a lockdown such as witnessed in Nigeria and many other countries, it is imperative that government should make adequate provisions in the form of palliatives for the citizenry to help cushion the effects of the lockdown. This will help to curb hunger-induced movements across the states which were avenues for community and interstate transmission of the virus. It is often difficult to implement lockdowns successfully and have full compliance of the general public with no palliatives provided to cushion the effects of staying at home without regular flow of income. Furthermore, in outbreak of diseases, the government and non-governmental health organizations should carry out massive sensitization, and acquaint the public, especially the ordinary citizens, on the need for the lockdown, and the importance of adhering to the preventive measures instituted to safeguard lives. This becomes imperative as findings indicate that many people did not understand the severity and the contagious nature of the COVID-19 virus. Finally, in the event of a repeat outbreak, government should take practical steps to ensure strict adherence to preventive measures such as personal hygiene, social distancing and the use of facemask.

There were some limitations of the study. First, we felt that there might have been a selection bias towards itinerant traders, who were more accessible and

disposed to the topic than other categories of merchants. Second, even though we focused on itinerant traders, our research did not include the perspectives of those traders, who were not willing to partake in trade during the lockdown periods. This might have limited a comprehensive understanding of the general disposition of this group of traders towards the novel virus. Despite these limitations, the study contributes to the extant literature that investigates the novel Corona Virus and its inherent challenges to humanity. Future research endeavours should address the limitations identified in this research.

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References

- Agbakwuru, J. (2020). Covid-19: Lockdown only favoured security agencies. www.covid-19-lockdown-only-favoured-security-agencies-research-center/amp/.
- Ahon, F., C. Onuegbu, H. Emanuel, P. Brisibe, & Uchechukwu, I. (2020). "COVID-19: Delta Raises Alarm Over Illegal Entry of Persons into State." Vanguard, May 19. <https://www.vanguardngr.com/2020/05/covid-19-delta-raises-alarm-over-illegal-entry-of-persons-into-state/>.
- Ajide, K.B., O.Y. Alimi, R.L. Ibrahim, and I.C. Nwokolo. 2020a. Modeling the Political Economy and Multidimensional Factors of COVID-19 Cases in Nigeria. *Journal of Economics, Race, and Policy* 3 (2020): 223–242. <https://doi.org/10.1007/s41996-020-00070-1>.
- Ajide, K.B., R.L. Ibrahim, and O.Y. Alimi. 2020b. Estimating the Impacts of Lockdown on Covid-19 Cases in Nigeria. *Transportation Research Interdisciplinary Perspectives* 2020: 7100217. <https://doi.org/10.1016/j.trip.2020.100217>.
- Akinwale, Y. (2019). Violation of court orders, arrest of journalists, other anti-democratic actions of Buhari administration. <https://www.icirnigeria.org/violation-of-court-orders-arrest-of-journalists-other-anti-democratic-actions-of-Buhari-administration/>
- Al-Raddadi, R.M., O.I. Shabouni, Z.M. Alraddadi, A.H. Alzalabani, A.M. Al-Asmari, A. Ibrahim, et al. 2020. Burden of Middle East Respiratory Syndrome Coronavirus Infection in Saudi Arabia. *Journal of Infection and Public Health* 13 (5): 692–696.
- Altamimi, A., and A.E. Ahmed. 2020. Climate factors and incidence of Middle East respiratory syndrome coronavirus. *Journal of Infection and Public Health* 13 (5): 704–708. <https://doi.org/10.1016/j.jiph.2019.11.011>
- Amzat, J., and O. Razum. 2018. *Towards a Sociology of Health Discourse in Africa*. Cham, Switzerland: Springer International Publishing.
- Amzata, J., K. Aminub, V.I. Kolob, A.A. Akinyeleb, J.A. Ogundairob, and M.C. Danjibob. 2020. Coronavirus Outbreak in Nigeria: Burden and Socio-Medical Response During the first 100 Days. *International Journal of Infectious Diseases* 98: 218–224.
- Ardichvilia, A., R. Cardozo, and S. Ray. 2003. A Theory of Entrepreneurial Opportunity Identification and Development. *Journal of Business Venturing* 18 (2003): 105–123.

- Boyatzis, R.E. 1998. *Transforming qualitative information: Thematic analysis and code development*. Sage.
- Braun, V., and V. Clarke. 2006. Using Thematic Analysis in Psychology. *Qualitative Research in Psychology* 3 (2): 77–101. <https://doi.org/10.1191/1478088706qp0630a>.
- Briz-Redón, Á., and Á.A. Serrano-Aroca. 2020. Spatio-Temporal Analysis for Exploring the Effect of Temperature on COVID-19 Early Evolution in Spain. *The Science of the Total Environment* 728: 138811.
- Castañeda, H. 2017. Migration is Part of the Human Experience but is Far from Natural. *Nature Human Behaviour* 1 (0147): 1. <https://doi.org/10.1038/s41562-017-0147>.
- Chu, D.K., E.A. Akl, S. Duda, et al. 2020. Physical Distancing, Face Masks, and Eye Protection to Prevent Person-to-Person Transmission of SARS-CoV-2 and COVID-19: A Systematic Review and Meta-analysis. *Lancet*. [https://doi.org/10.1016/S0140-6736\(20\)31142-9](https://doi.org/10.1016/S0140-6736(20)31142-9).
- Cressy, C. 1992. The Theory of Opportunistic the Entrepreneur. *Small Business Economics* 4: 267–271. <https://doi.org/10.1007/BF00388622>.
- Devillard, A., A. Bacchi, and M. Noack. 2015. *A survey on migration policies in West Africa*. ECOWAS.
- Esterberg, K. 2002. *Qualitative methods in social research*. McGraw Hill, Boston.
- Evans, D., and B. Jovanovic. 1989. An estimated model of entrepreneurial choice under liquidity constraints. *Journal of Political Economy* 97 (4): 808–827.
- Eze, J.O.B., B.O. Ajah, O.S. Nwonovo, and C.S. Atama. 2021. Health Sector Corruption and COVID-19 Outbreak: Evidence from Anambra and Enugu States, Nigeria. *Journal of Contemporary African Studies*. <https://doi.org/10.1080/02589001.2021.1921129>.
- Ezeibe, C.C., C. Ilo, E.N. Ezeibe, C.N. Oguonu, N.A. Nwankwo, C.K. Ajaero, and N. Osadebe. 2020. Political Distrust and the Spread of COVID-19 in Nigeria. *Global Public Health*. <https://doi.org/10.1080/17441692.2020.1828987>.
- Feldmann, A., Gasser, O., Lichtblau, F., Pujol, E., Poese, E., Dietzel, C. Wagner, D., Wichtlhuber, Tapiador, NarseoVallina-Rodriguez, Hohlfeld, O., & Smaragdakis, G. (2020). The Lockdown Effect: Implications of the COVID-19 Pandemic on Internet Traffic. In *ACM Internet Measurement Conference (IMC '20)*, October 27–29, 2020, Virtual Event, USA. ACM, New York, NY, USA. <https://doi.org/10.1145/3419394.3423658>
- Ferdinand, K.C., and S.A. Nasser. 2020. African American COVID-19 Mortality: A Sentinel Event. *Journal of the American College of Cardiology*. 75 (21): 2746–2748.
- Galeotti, C., and J. Bayry. 2020. Autoimmune and Inflammatory Diseases Following COVID-19. *Nature Reviews Rheumatology* 16: 413–414.
- Gwee, S.X.W., P.E.Y. Chua, M.X. Wang, and J. Pang. 2021. Impact of Travel Ban Implementation on COVID-19 Spread in Singapore, Taiwan, Hong Kong and South Korea During the Early Phase of the Pandemic: A Comparative Study. *BMC Infectious Diseases* 21 (799): 1–17. <https://doi.org/10.1186/s12879-021-06449-1>.
- Ibrahim, R.L., K.B. Ajide, and O.J. Omokanmi. 2020. Easing of Lockdown Measures in Nigeria: implication for the Healthcare System. *Health Policy Technol* 9 (4): 399–404. <https://doi.org/10.1016/j.hlpt.2020.09.004>.
- Klompas, M., C.A. Morris, J. Sinclair, M. Pearson, and E.S. Shenoy. 2020. Universal Masking in Hospitals in the COVID-19 Era. *The New England Journal of Medicine* 382 (21): e63. <https://doi.org/10.1056/NEJMp2006372>.
- Lee, K., C.Z. Worsnop, K.A. Grépin, and A. Kamradt-Scott. 2020. Global Coordination on Cross-Border Travel and Trade Measures Crucial to COVID-19 Response. *Lancet* 395 (10237): 1593–1595. [https://doi.org/10.1016/S0140-6736\(20\)31032-1](https://doi.org/10.1016/S0140-6736(20)31032-1).
- Lehmann, E.Y., and L.S. Lehmann. 2020. Responding to Patients Who Refuse to Wear Masks During the Covid-19 Pandemic. *Journal of General International Medicine* 36 (9): 2814–2815. <https://doi.org/10.1007/s11606-020-06323-x>.
- Lopez, V. (2012). Understanding Adolescent Property Crime Using a Delinquent Events Perspective. In *About Criminal: A View of the Offenders' World*, edited by M. R. Pogrebin, 1–18. 2nd ed. New York: Sage Publications
- Lyu, W., and G.L. Wehby. 2020. Community Use of Face Masks and COVID-19: Evidence From a Natural Experiment of State Mandates in the US. *Health Affairs* 39 (8): 1–7. <https://doi.org/10.1377/hlthaff.2020.00818>.
- National Health Research Ethics Committee (NHREC, 2020). *Promoting highest ethical and scientific standards for health research in Nigeria*. Gazette of the Nigerian Federal Ministry of Health.

- NCDC, (2020). First case of corona virus disease confirmed in Nigeria. <https://ncdc.gov.ng/news/227/first-case-of-corona-virus-disease-confirmed-in-nigeria#:~:text=The%20federal%20ministry%20of%20Health,in%20china%20in%20January%202020>.
- Nwozor, A., C. Okolie, O. Okidu, and S. Oshewolo. 2020. The Looming Dangers of Explosion in Community Transmissions of Covid-19 in Nigeria. *Annals of Global Health* 86 (1): 1–5. <https://doi.org/10.5334/aogh.2990>.
- Nzeadibe, T.C., and A.U.P. Ejike-Alieji. 2020. Solid Waste Management During Covid-19 Pandemic: Policy Gaps and Prospects for Inclusive Waste Governance in Nigeria. *Local Environment: THE International Journal of Justice and Sustainability* 25 (7): 1–9.
- Okolie-Osemene, J. 2021. Nigeria's Security Governance Dilemmas During the Covid-19 Crisis. *Politikon* 48 (2): 260–277. <https://doi.org/10.1080/02589346.2021.1913802>.
- Olayemi, P. 2020. "Delta Communities Raise Alarm Over Influx of Strange Faces." Vanguard, May 17. <https://www.vanguardngr.com/2020/05/delta-communities-raise-alarm-over-influx-of-strangefaces/>.
- Omaka-Amari, L.N., C.O. Aleke, N.E. Obande-Ogbuinya, P.C. Ngwakwe, O. Nwankwo, and E.N. Afoke. 2020. Coronavirus (COVID-19) Pandemic in Nigeria: Preventive and Control Challenges Within the First Two Months of Outbreak. *African Journal of Reproductive Health* 24 (2): 87.
- Onwuazombe, I.I. 2017. Human Right Abuse and Violation in Nigeria: A Case Study of the Oil Producing Communities in the Niger Delta Region. *Annual Survey of International and Comparative Law* 22 (1): 115–160.
- Ookeditse, L. 2020. Reimagining Botswana's National Security in Light of COVID-19. *African Security Review*. <https://doi.org/10.1080/10246029.2020.1806088>.
- Oyero, K. (2020). Kano recorded 979 strange deaths. <https://punchng.com/kano-recorded-979-strange-deaths-fig/>.
- Patel, A., and D.B. Jernigan. 2020. Initial Public Health Response and Interim Clinical Guidance for the 2019 Novel Coronavirus Outbreak: United States. *Morbidity and Mortality Weekly Report* 69 (5): 140–146.
- Population Reference Bureau (2015). *Human population: migration*. Washington. <http://www.prb.org/> on 3/1/2020.
- Ritter Z, Brenan M. (2020). *New April Guidelines Boost Perceived Efficacy of Face Masks*. <https://news.gallup.com/poll/310400/new-aprilguidelines-boost-perceived-efficacy-face-masks.aspx>.
- Wang, L., J. Li, S. Guo, N. Xie, L. Yao, Y. Cao, S.W. Day, S.C. Howard, J.C. Graff, T. Gu, J. Ji, W. Gu, and D. Sun. 2020a. Real-Time Estimation and Prediction of Mortality Caused by COVID-19 with Patient Information-Based Algorithm. *The Science of the Total Environment* 727: 138394. <https://doi.org/10.1016/j.scitotenv.2020.138394>.
- Wang, X., E.G. Ferro, G. Zhou, D. Hashimoto, and D.L. Bhatt. 2020b. Association Between Universal Masking in a Health Care System and SARS-CoV-2 Positivity Among Health Care Workers. *JAMA* 324 (7): 703. <https://doi.org/10.1001/jama.2020.12897>.
- Wang, C., D. Wang, J. Abbas, K. Duan, and R. Mubeen. 2021. Global Financial Crisis, Smart Lockdown Strategies, and the COVID-19 Spillover Impacts: A Global Perspective Implications from Southeast Asia. *Frontier Psychiatry* 12 (643783): 1–16. <https://doi.org/10.3389/fpsy.2021.643783>.
- Witteveena, D., and E. Velthorst. 2020. Economic Hardship and Mental Health Complaints During COVID-19. *Proceedings of the National Academy of Sciences* 117 (44): 27277–27284. <https://doi.org/10.1073/pnas.2009609117/-DCSupplemental>.
- World Bank (2020). *The global economic outlook during the COVID-19 pandemic: A changed world*. <https://www.worldbank.org/en/news/features/2020/06/08/the-global-economic-outlook-during-the-COVID-19-pandemic-a-changed-world>
- World Health Organization. 2020. Coronavirus. https://www.who.int/health-topics/coronavirus#tab=tab_1.
- Worldometer (2020). *COVID-19 coronavirus pandemic*. <https://www.worldometers.info/coronavirus/>.
- Yendaw, E. 2021. Cross-Border Migration of Itinerant Immigrant Retailers in Ghana. *Journal of International Migration and Integration*. <https://doi.org/10.1007/s12134-021-00839-9>.
- Zhao, S., Q. Lin, J. Ran, S.S. Musa, G. Yang, W. Wang, Y. Lou, D. Gao, L. Yang, D. He, and M.H. Wang. 2020. Preliminary Estimation of the Basic Reproduction Number of Novel Coronavirus (2019-nCoV) in China, From 2019 to 2020: A Data-Driven Analysis in the Early Phase of the Outbreak. *International Journal of Infectious Diseases* 92: 214–217.

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