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The Socio-Economic Ramifications of the Covid-19 Pandemic: The Case of Ghana

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Abstract

The novel, dreaded, disruptive, and disastrous Covid-19 pandemic took the world by storm in January, 2020. The Covid-19 pandemic in Ghana is part of the worldwide coronavirus disease caused by “severe acute respiratory syndrome (SARS-CoV-2)”. On 12th January, 2020 the World Health Organisation (WHO) confirmed that the novel coronavirus was the cause of a respiratory illness that affected a cluster of people in Wuhan City, Hubei Province, China. This was reported to the WHO on 31st December, 2019. On 11th March, 2020, WHO declared the novel Covid-19 a global pandemic (Graphic Online, 2020a). It is worthy to note how the Government of Ghana, political parties, citizens, scientists and academia, corporate entities, faith based organisations, traditional rulers, have offered varied forms of interventions to combat the scourge. The Theoretical Framework of this research was underpinned by the Theory of Epidemics, the Agency Theory, the Rational Choice Theory, and the Stakeholder Theory. We conducted a cross-sectional research through non-probability and purposive sampling with 250 respondents. We also employed face-to-face interviews, structured closed-ended and open-ended Questionnaires (Braun and Clarke, 2012; Denzin, 2017), which were administered online through email application via Google Forms. One of our major findings was that with the approval of Pfizer/BioNTech Covid-19 vaccine by the UK's MHRA on 1st December, 2020 (Graphic Online, 2020b); and subsequently by the US FDA a week later on 8th December, 2020 (Graphic Online, 2020c), all governments around the globe in general, but Africa in particular, must make conscious efforts backed by adequate budgetary allocations to secure maximum quantities of the vaccines for their vulnerable teeming population.

Keywords: Covid-19 Pandemic, Coronavirus, Wuhan City, Hydroxychloroquine, Pfizer, BioNTech, MHRA, FDA, Theory of Epidemics, Agency Theory, Rational Choice Theory, Stakeholder Theory.

1. INTRODUCTION

The novel, dreaded, disruptive, and disastrous Covid-19 pandemic took the world by storm in January, 2020. The Covid-19 pandemic in Ghana is part of the worldwide pandemic of coronavirus disease 2019 caused by “severe acute respiratory syndrome (SARS-CoV-2)”. On 12th January, 2020 the World Health Organisation (WHO) confirmed that the novel coronavirus was the cause of a respiratory illness that affected a cluster of people in Wuhan City, Hubei Province, China. This was reported to the WHO on 31st December, 2019. On 11th March, 2020, WHO declared the novel Covid-19 a global pandemic (Graphic Online, 2020a).

Since COVID 19 sprung a surprise on the world after lingering on in China for the last quarter of 2019, nations have reacted differently in their response to this menace. It is worthy to note how the Government of Ghana, political parties, citizens, scientists and academia, corporate entities, faith-based organisations, traditional rulers, etc. have risen up to the occasion to be counted with varied forms of interventions to combat the scourge.

It is worth mentioning that, some of the public etiquette that Ghanaians acquired during the outbreak of Ebola between 2014 and 2016 (May and Anderson, 1987) has lingered on, although Ghana never registered a single case during that epidemic. However, the use of alcohol-based hand sanitizers and gloves in particular had become commonplace in most public places and airports in Ghana as a direct consequence of Ebola.

On the 4th of March 2020, the President of Ghana visited the Kotoka International Airport and isolation and treatment centers of the Tema General Hospital and the Greater Accra Regional Hospital to inspect their readiness in response to COVID 19. He stated that there were designated isolation and treatment centres in all the 16 regions of the Country. On the 6th of March, 2020, while giving the 63rd Independence Anniversary Speech (Graphic Online, 2020d), the President admonished the populace on the need for handwashing with soap under running water, the use of alcohol-based hand sanitizers, and avoidance of unnecessary contact (social distancing). On that occasion, the president instructively and conspicuously did not shake hands with dignitaries (an act which is atypical of such celebrations).

As has already been stated, the novel, dreaded, disruptive, and disastrous Covid-19 pandemic took the world by storm in January, 2020. The Covid-19 pandemic in Ghana is part of the worldwide pandemic of coronavirus disease 2019 caused by “severe acute respiratory syndrome (SARS-CoV-2)”. On 12th January, 2020 the World Health Organisation (WHO) confirmed that the novel coronavirus was the cause of a respiratory illness that affected a cluster of people in Wuhan City, Hubei Province, China. This was reported to the WHO on 31st December, 2019. On 11th March, 2020, WHO declared the novel Covid-19 a global pandemic?

On that same day, 11 March, 2020 the President of Ghana Nana Akufo-Addo directed the Minister of Finance, Ken Ofori-Atta, to make the cedi equivalent of US\$100 million available to enhance Ghana's coronavirus preparedness and response plan (Starrfmonlie, 2020). The President, later in the evening, delivered his “First Covid-19 Pandemic State of the Nation Address”. On 12 March, the Health Minister, Kwaku Agyemang-Manu, announced Ghana's first two cases at an emergency press briefing in Accra (www.ghanaweb.com). The two confirmed positive cases were people who returned to the country from Norway and Turkey, “making them imported cases of COVID-19 in Ghana”. These two cases begun the first contact tracing process in Ghana. Of the first two cases reported in Ghana, one case was a senior officer at the Norwegian Embassy in Ghana (Anyorigya, 2020) who had returned from Norway, while the other was a staff member at the United Nations (UN) offices in Ghana (Graphic Online, 2020) who had returned from Turkey (Graphic Online, 2020a). The Speaker of Parliament instructed MPs to have their temperature be tested before entering the Chamber (www.ghanaweb.com)

On 15 March, 2020, President Akufo-Addo banned all public gatherings including conferences, workshops, funerals, festivals, political rallies, church activities, and other related events to reduce the spread of COVID-19 at a press briefing on the state of COVID-19. Basic schools, senior high schools and universities (both public and private), were also closed. Only BECE and WASSCE candidates were permitted to remain in school and were to observe social distancing protocols. On the 21st of March, the President announced the first Covid-19 death from Kumasi (GhanaWeb, 2020c).

On that same day, all air, land and sea borders were closed to human traffic (Graphic Online, 2020e), for a fortnight from the midnight of Sunday, the 22nd of March, 2020. In a State of the Nation Address on the 27th of March, 2020, the three main cities of Accra, Tema and Kasoa, and the Kumasi Metropolis and its environs were placed under a “partial lockdown” effective Monday, 30th March, 2020 (Graphic Online, 2020f). All beaches were closed, and all markets in Accra were disinfected. All of the country's borders were later closed for two weeks from midnight of Sunday 22 March 2020. Passport services were also suspended.

Members of the Executive, Legislature, and the Judiciary, plus all the Security Services, some of the essential services like water, electricity, the telecom companies, the banking sector, and those involved in the production, distribution, and marketing of food, beverages, pharmaceuticals, medicines, paper and plastic packages were exempted from the restrictions. In addition, a Special Life Insurance Group Cover for frontline health professionals to the tune of GHC350,000 per head was announced by the President. Again, all Ghana Health Service Staff on Study Leave were recalled for the Covid-19 fight (Graphic Online, 2020g). The confirmed cases at the end of the very first month (March, 2020) of the emergence of Covid-19 in Ghana came to 161.

Although the Covid-19 pandemic is in its embryonic stages, this research was conducted to fill the academic gap by examining the global ramifications of the disease with regard to its rate of infection, mode of transmission, mortality rate, and its disastrous and disruptive consequences, with particular reference to the socio-economic life of Ghanaians between 12th March, 2020 when the first positive case was reported and 15th December, 2020.

The primary objectives of the study were:

- To ascertain the rate of infection of the Covid-19 pandemic in Ghana;
- To follow on the spread, and the mode of transmission of the disease in Ghana;
- To examine the various protocols put in place to minimise the spread of the pandemic;
- To identify the Ghanaian response, emergency expenditures, and stimulus packages;
- To assess the socio-economic impact of the disease in Ghana.

The rest of the paper is presented sequentially according to literature review, with particular reference to the conceptual and theoretical framework, empirical evidence, methodology, discussion of result and major findings, conclusion and recommendations.

2. THEORETICAL FRAMEWORK

2.1. The Theory of Epidemics

Epidemics that strike without warning, killing and incapacitating people indiscriminately, are dramatic and terrifying natural phenomena, equalled only by floods, earthquakes, and fires in the devastation they can cause, and often exceeding them in the horror and fear they evoke. Ancient priests and physicians seized on any supernatural or natural explanations for such epidemics. According to McKendrick (1926), they blamed the wrath of a vengeful god, evil spirits, or a convenient scapegoat (witches, demons, and passing strangers).

By the time of the Renaissance in the late 19th Century, people were blaming the climate and the weather for causing epidemics, with or without the conjunction of astrological signs. The miasma theory of disease was then concordant with this view. The birth of bacteriology, the discovery of infectious pathogens, and the ascendancy of the germ theory of disease led to more rational analysis of the observed facts, and the development of more logical explanations. From the “Public Health” perspective, it is as important to discover what leads to the decline and disappearance of epidemics as to understand why and how they begin and continue (Kermack and McKendrick, 1932).

William Farr (1807-1883) was the first to discern mathematical principles governing the behaviour of epidemics. William Hamer, Ronald Ross, and other “Public Health Specialists” in the early twentieth century (McKendrick, 1926) developed refined mathematical models, factoring into their equations the variables involved in determining the interactions of disease agents, human hosts, and environmental conditions. Ross’s models showed the interaction of mosquitoes, malaria parasites, and humans under varying conditions. Hammer modelled common infectious fevers of childhood.

According to Bailey (1975), “Epidemics Theory” considers three variables: agent, host, and environment. Epidemic Theory has been verified by empirical observations, and by experimental epidemiology, in which infectious pathogens are introduced into colonies of mice or rats, and the effects (disease and death outcomes)

observed. The spread of a contagious disease involves the interaction of two populations: the susceptible and the infective. In some diseases, these two populations are from different species.

For example, malaria is not passed directly between animals, but by anopheles mosquitoes; and schistosomiasis is passed from one animal to the other only through contact with water harbouring snails that can incubate the disease-causing helminths. In other diseases (May and Anderson, 1987), the infection can be passed directly from infectives to susceptibles. Viral diseases like chickenpox, measles, and influenza; and bacterial diseases like tuberculosis can pass through a population much as fire spreads through a grassland in a hot harmattan. The Covid-19 pandemic is in this category.

There are useful analogies between epidemics and chemical reactions. A Theory of Epidemics was derived by W. O. Kermack (a chemist), and A. G. McKendrick (a physician), who worked at the Royal College of Surgeons, in Edinburgh between 1900 and 1930. They introduced and used many novel mathematical ideas in studies of populations. One important result of theirs is that an infection determines a threshold size for the susceptible population, above which an epidemic will propagate. Their theoretical epidemic threshold is observed in practice, and it measures the extent to which a real population is vulnerable to the spread of an epidemic. At roughly the same time, V. I. Semenov derived a theory of combustion that identified explosion limits beyond which combinations of pressure and temperature cause chemicals to begin explosive chain-branched reactions. The two calculations are quite similar.

2.2. Agency Theory

The first scholars to propose, explicitly, that a theory of agency be created, and to actually begin its creation, were Stephen Ross (1973) and Barry Mitnick (1973), working independently and roughly concurrently. Ross is responsible for the origin of the economic theory of agency, and Mitnick for the institutional theory of agency, though the basic concepts underlying these approaches are similar. According to Ross and Mitnick, "Agency theory" examines the relationship between the agents and principals in the business. In an agency relationship, two parties exist (the agent and principal), whereby the former acts and takes decisions on behalf of the latter. The theory revolves around the relationship between the two, and the issues that may surface due to their different risk perspectives and business goals. In finance, the most talked about agency relationship exists between shareholders and executives of a corporation where the top brass is elected to act in the interest of the true owners of the company.

Agency theory suggests that the firm can be viewed as a nexus of contracts (loosely defined) between resource holders. An agency relationship arises whenever one or more individuals, called principals, hire one or more other individuals, called agents, to perform some service and then delegate decision-making authority to the agents. The primary agency relationships in business are those (1) between stockholders and managers and (2) between debt-holders and stockholders. These relationships are not necessarily harmonious; indeed, agency theory is concerned with so-called agency conflicts, or conflicts of interest between agents and principals.

According to Mitnick (1993), one of the most common examples of agency theory can be seen in the way a government of a country functions. The masses elect political representatives to run the country in a way that maximizes their interests. Representatives of different political parties promise the voters to bring changes in the governing model of the country. However, the electorates of almost all sovereigns find themselves cheated when their elected candidates act in an unscrupulous manner after assuming office. Here, the voters act as principals who elect the government representatives to act as their agents.

In the view of (Shapiro, 2005), there are two situations which make efforts on resolving agency conflicts all the more important. One of the major reasons for such strife is the levels of risk appetite each is willing to undertake. Shareholders are mostly not involved in the day-to-day working of the company and hence are not fully equipped to understand the rationale behind critical business decisions. On the contrary, managers are more far-sighted and have a far greater risk appetite due to their close access to the relevant information. They believe in the going concern concept of accounting and most of their decisions are taken keeping the long-term view of the company

in mind. While the shareholders are keen to increase the current and future value of their holdings, the executives are more interested in the long-term growth of the company. Thus, the differences in their approach create a feeling of distrust and disharmony.

In a nutshell, there is a problem of goal congruence between the two parties. The corporate governance policies, which aim at aligning the objectives of both the principal and agents, are likely to resolve most agency conflicts. As we know that there are no free lunches in this world, there are some agency costs also.

2.3. Rational Choice Theory

Rational choice theory, also known as “theory of rational choice”, “choice theory” or “rational action theory”, is a framework for understanding and often formally modeling social and economic behaviour (Bell, 1981; Pierre Bourdieu, 2005). The basic premise of rational choice theory is that aggregate social behaviour results from the behaviour of individual actors, each of whom is making their individual decisions. The theory also focuses on the determinants of the individual choices (methodological individualism). Rational choice theory then assumes that an individual has preferences among the available choice alternatives that allow them to state which option they prefer (Nell and Errouaki, 2011). These preferences are assumed to be complete (the person can always say which of two alternatives they consider preferable; or that neither is preferred to the other) and transitive (if option A is preferred over option B; and option B is preferred over option C; then option A is preferred over option C).

According to Kahneman and Tversky (1979), the rational agent is assumed to take account of available information, probabilities of events, and potential costs and benefits in determining preferences, and to act consistently in choosing the self-determined best choice of action. In simpler terms, this theory dictates that every person, even when carrying out the most mundane of tasks, performs their own personal cost and benefit analysis in order to determine whether the action is worth pursuing for the best possible outcome. And following this, a person will choose the optimum venture in every case. This could culminate in a student deciding on whether to attend a lecture or stay in bed, a shopper deciding to provide their own bag to avoid the five cedis (GHC5.00) charge, or even a voter deciding which candidate or party to choose from (based on who will fulfill their needs the best way).

In the opinion of Frank (1990), a particular version of rationality is “instrumental rationality”, which involves seeking the most cost-effective means to achieve a specific goal without reflecting on the worthiness of that goal. Rational choice theorists do not claim that the theory describes the choice “*process*”, but rather that it predicts the “*outcome*” and “*pattern*” of choices. An assumption often added to the rational choice paradigm is that individual preferences are self-centered, in which case the individual can be referred to as a “*homo economicus*”. Such an individual acts *as if* they are balancing costs against benefits to arrive at an action that maximizes personal advantage.

According to Coleman (1990), without specifying the individual's goal or preferences, it may not be possible to empirically test, or falsify, the rationality assumption. However, the predictions made by a specific version of the theory are testable. In recent years, the most prevalent version of rational choice theory, “*Expected Utility Theory*”, has been challenged by the experimental results of behavioral economics. Economists are learning from other fields, such as psychology, and are enriching their theories of choice in order to get a more accurate view of human decision-making. For example, the behavioral economist and experimental psychologist Daniel Kahneman won the Nobel Memorial Prize in Economic Sciences in 2002 for his work in this field. According to James Coleman (1990), the rational choice theory has become increasingly employed in social sciences other than economics, such as sociology, evolutionary theory, and political science in recent decades. It has had far-reaching impacts on the study of political science, especially in fields like the study of interest groups, elections, behaviour in legislatures, coalitions, and bureaucracy. In these fields, the use of the rational choice paradigm to explain broad social phenomena is the subject of controversy.

Early neoclassical economists writing about rational choice, including William Stanley Jevons (1835-1882), assumed that agents make consumption choices so as to maximize their happiness, or utility. Contemporary theory

bases rational choice on a set of choice axioms that need to be satisfied, and typically does not specify where the goal (preferences, desires) comes from. It mandates just a consistent ranking of the alternatives. Individuals choose the best action according to their personal preferences and the constraints facing them. For instance, there is nothing irrational in preferring fish to meat the first time, but there is something irrational in preferring fish to meat in one instant and preferring meat to fish in another, without anything else having changed.

The theory applies to more general settings than those identified by costs and benefits. In general, rational decision making entails choosing among all available alternatives the alternative that the individual most prefers. The "alternatives" can be a set of actions ("what to do?") or a set of objects ("what to choose/buy"). In the case of actions, what the individual really cares about are the outcomes that result from each possible action. Actions, in this case, are only an instrument for obtaining a particular outcome (Elster, 1989).

According to Anand (1993), the theory makes two technical assumptions about individuals' preferences over alternatives:

- *Completeness* – for any two alternatives A and B in the set, either A is preferred to B, or B is preferred to A, or the individual is indifferent between A and B. In other words, *all* pairs of alternatives can be compared with each other.
- *Transitivity* – if alternative A is preferred to B, and alternative B is preferred to C, then A is preferred to C.

Together, these two assumptions imply that given a set of exhaustive and exclusive actions to choose from, an individual can *rank* the elements of this set in terms of his preferences in an internally consistent way (the ranking constitutes a *partial ordering*), and the set has at least one maximal element.

The preference between two alternatives can be:

- *Strict preference*, occurs when an individual prefers A to B and does *not* view them as equally preferred.
- *Weak preference*, implies that an individual either strictly prefers A over B, or is indifferent between them.
- *Indifference*, occurs when an individual neither prefers A to B, nor B to A. Since (by completeness) the individual does not *refuse* a comparison, they must therefore be indifferent in this case.

Additional assumptions include:

- *Perfect information*: The simple rational choice model above assumes that the individual has full or perfect information about the alternatives, i.e., the ranking between two alternatives involves no uncertainty.
- *Choice under uncertainty*: In a richer model that involves uncertainty about the how choices (actions) lead to eventual outcomes, the individual effectively chooses between lotteries, where each lottery induces a different probability distribution over outcomes. The additional assumption of independence of irrelevant alternatives then leads to "expected utility theory".
- *Intertemporal choice*: when decisions affect choices (such as consumption) at different points in time, the standard method for evaluating alternatives across time involves discounting future payoffs.
- *Limited cognitive ability*: identifying and weighing each alternative against every other may take time, effort, and mental capacity. Recognising the cost that these impose, or cognitive limitations of individuals, gives rise to "theories of bounded rationality".

According to Bicchieri (1993), the relationship between the rational choice theory and politics takes many forms, whether that be in voter behaviour, the actions of world leaders, or even the way that important matters are dealt with. Voter behaviour shifts significantly thanks to rational theory, which is ingrained in human nature, the most significant of which occurs when there are times of economic trouble. This was assessed in detail by the American Political Economist, Anthony Downs (1957) who concluded that voters were acting on thoughts of higher income as a person 'votes for whatever party he believed would provide him with the highest utility income from

government action. This is a significant simplification of how the theory influences people's thoughts, but makes up a core part of rational theory as a whole.

In a more complex fashion, voters will react often radically in times of real economic strife, which can lead to an increase in extremism. The government will be made responsible by the voters and thus they see a need to make a change. Some of the most infamous extremist parties came to power on the back of economic recessions, the most significant being the far-right Nazi Party in Germany, who used the hyperinflation at the time to gain power rapidly, as they promised a solution and a scapegoat for the blame. The fear for many is that rational thinking does not allow for an efficient resolution to some of the most troubling world problems, such as the climate crisis, and the novel, dreaded, disastrous, and disruptive Covid-19 pandemic. In this way, nationalism will not allow countries to work together and thus the criticisms of the theory should be noted very carefully.

2.4. The Stakeholder Theory

The first person to define stakeholder theory was organizational theorist Ian Mitroff in his book *Stakeholders of the Organizational Mind*, which came out in 1983. Shortly thereafter, an article about stakeholder theory was released in 1983 in the *California Management Review* by philosopher and professor of business administration R. Edward Freeman. Freeman did not cite Mitroff as a source; rather he attributed his stakeholder theory to discussions at the Stanford Research Institute. He went on to publish his book, *Strategic Management: A Stakeholder Approach*, shortly after the article. In Freeman's book, he identified and modelled stakeholder groups within a corporation, describing and recommending ways to manage their interests and determine who really counts from the perspective of the company.

The Stakeholder Theory, is a theory of organizational management and business ethics that accounts for multiple constituencies impacted by business entities such as employees, suppliers, customers, local communities, and others. The theory addresses morals and values in managing an organization, such as those related to corporate social responsibility, market economy, and social contract theory (Hill and Jones, 2012; Howlet and Ramesh, 2003).

Stakeholder theory is a view of capitalism that stresses the interconnected relationships between an organization and its customers, suppliers, employees, investors, communities and others who have a stake in the organization. The theory argues that a firm should create value for "all stakeholders", not just its "shareholders (Freeman, 1984)"

The theory of the Stakeholder has fundamentally become a basis of knowledge for businesses (and by extension, countries), to secure their relationship with their stakeholders through a corporate social responsibility, and a social contract. Free, fair, and transparent multi-party democratic elections at periodic intervals is considered as a strategic approach by which countries denote stakeholders' participation and reduces information asymmetry (Hobbes, 1985; Quentin, 1978). It has been recognized that organizations taking into account stakeholders' requirements tend to show better performance than those that do not.

The "Stakeholder Theory" was assumed to be a bulwark against the unbridled corruption-craze by public officials against the state. But the stakeholder theory notes that there are several interested parties that must be included under the umbrella of stakeholder, such as the company's employees, customers, suppliers, financiers, communities, governmental bodies, political groups, trade associations, trade unions and even competitors, as they too can impact the company. The list of who the stakeholders are is not universally agreed upon, and even the definition of a stakeholder remains contested by some (Suchman, 1995). Even the academic literature is in conflict. There are many books and articles on the subject and most cite Freeman as its father (Lindblom and Woodhouse, 1993).

Freeman says he stood on the shoulders of giants, such as building from research in strategic management, corporate planning, systems theory, organization theory and corporate social responsibility (Hill and Jones, 2012). More recently, in 1995, ethicist Thomas Donaldson has argued that stakeholder theory has descriptive, instrumental and normative aspects that are mutually supportive. Stakeholder theory posits that a company is only successful when it delivers value to its stakeholders, and those values can come in many forms beyond financial

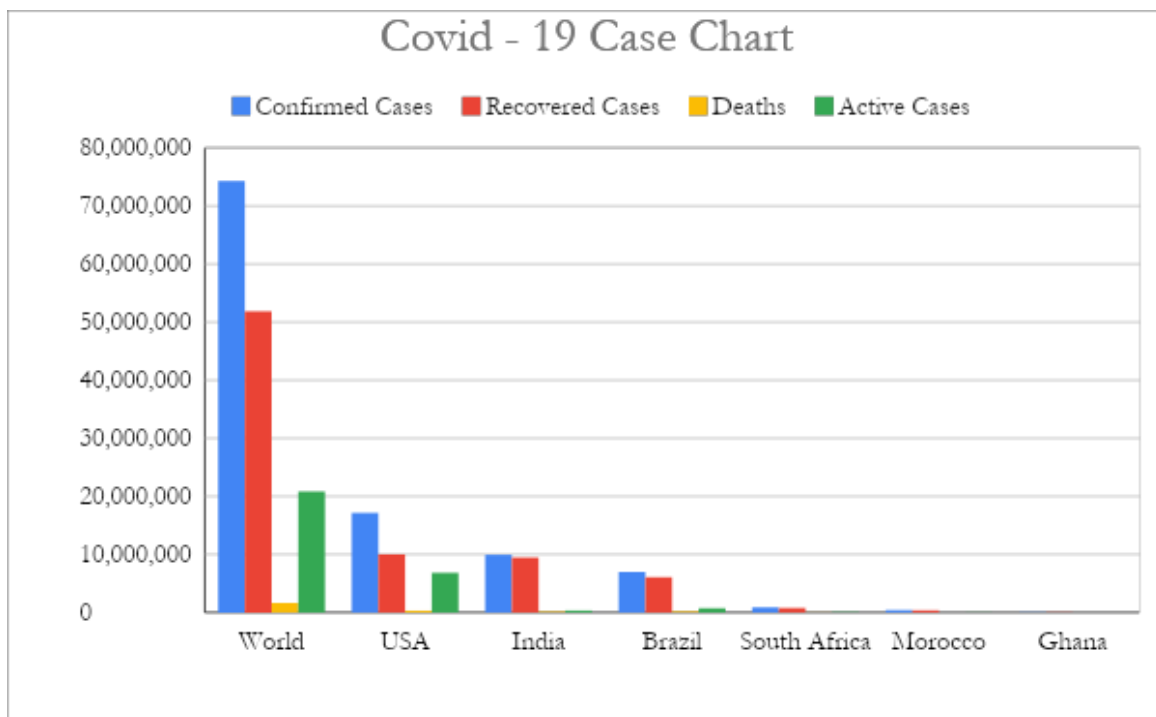
benefits. One of the values produced by stakeholder theory includes greater productivity across the organization. Stakeholder theory drives more than profits and productivity. There are ethical benefits of practicing it as well.

Some critics say the stakeholder theory is problematic because the interests of various stakeholders cannot be balanced against each other. This is because stakeholders represent such a large and diverse group. According to Quentin (1978), you cannot please every stakeholder. One or more stakeholders will have to take a backseat to other, more dominant ones, which is likely to create discord. This will disrupt the benefits associated with stakeholder theory. Also, who will wield the most influence? Some stakeholders might find that they are not impacting decisions as much as another group. The different power levels and spheres of influence can be a problem. Even those with seemingly more influence might not feel that they are getting what they want.

2.5. THE EMPIRICAL EVIDENCE

2.5.1. Covid-19 Case Count as at 16th December, 2020

	Confirmed Cases	Recovered Cases	Deaths	Active Cases
World	74,310,697	51,836,162	1,642,083	20,832,452
USA	17,143,942	10,007,956	311,073	6,824,913
India	9,932,908	9,456,449	144,130	332,329
Brazil	6,974,258	6,067,862	182,854	723,542
South Africa	873,679	764,977	23,661	85,041
Morocco	403,619	362,911	6,711	33,997
Ghana	53,270	51,965	327	978



2.5.1. Global Ramifications due to the Covid-19 Pandemic

The aviation industry came to a screeching halt because of the impossibility of social distancing in the “belly of an iron bird”, and border closures and lockdowns. With air, land, and sea borders closed, the tourism industry came crashing down. Most hospitality venues have closed their doors, musicians have cancelled their shows, and filmmakers have stopped production. The entertainment industry globally has not been spared; movie releases have been pushed back, concerts have been cancelled, TV shows have stopped filming, theatres have been shut (among others), putting many people out of jobs.

Global, national, and local football and all sporting activities have come to an end as a direct result of Covid-19. The scale of the rail and road transport services were curtailed as a result of social distancing. Religious tourism and church services were all curtailed. The industry for personalised services such as hairdressers, beauticians, barbers. The educational sector suffered the most, although some educational institutions intensified their presence and activities online. Auditing and accounting firms were not spared the devastating effects of Covid-19 pandemic. Notwithstanding the devastating, disastrous, and disruptive consequences, the pharmaceutical industry, the energy industry, and the utility industries (water, electricity, telecoms etc) experienced an upsurge in the scale of their operations.

2.5.2. Stimulus Packages

A “stimulus package” is a package of economic measures put together by a government to stimulate a floundering economy. The objective of a stimulus package is to invigorate the economy and prevent or revert a recession by boosting employment and spending. The theory behind the usefulness of a stimulus package is rooted in Keynesian economics (Keynes, 1936), which argues that recessions are not self-correcting, and therefore government intervention can ameliorate the impact of a recession. This happens because increased government spending makes up for the decreased private spending, thereby boosting overall aggregate demand to close the output gap in the economy. The US Senate voted to approve a \$2 trillion stimulus bill on March 25th, 2020, to backstop the economy from the economic impact of the Covid-19 pandemic. President Donald Trump signed the CARES Act into law on 27th March, 2020.

2.5.3. Covid-19 Vaccines

Pfizer/BioNTech announced on November 9, 2020 that its Covid-19 vaccine has been found to be more than 95% effective in its recently concluded large scale trial (BBC News, 2020a; CNN, 2020a). The two key scientists who developed this vaccine are Turkish-born Muslims named Dr Ugur Sahin and his wife Dr Ozlem Tureci. The couple started “BioNTech”, a technology startup based in Germany, to develop treatments using “messenger RNA technology”. Dr Ugur Sahin, 55 and his wife, Dr Ozlem Tureci, 53 are both Turkish-Muslim immigrants in Germany, who had been working on the “mRNA technology” for more than 25 years. BioNTech was already working with the Pfizer Pharmaceutical company of Germany to develop a “new flu vaccine” when Covid-19 emerged in China.

Vaccines work by mimicking disease agents and stimulating the immune system to build up defences against them. On 8th December, 2020, a UK grandmother became the first person in the world to be given the “Pfizer Covid-19 Jab” as part of a mass vaccination programme. Margaret Keenan, who turns 91 years next week, said the “injection she received (the first of two doses) at 06:31 GMT was her best early birthday present”. It was the first of 800,000 doses of the Pfizer/BioNtech vaccine that will be dispensed in the coming weeks. Up to 4 million more doses (out of a total of 40 million), are expected at the end of December, 2020. Health hubs in the UK intend to vaccinate those who are 80 years and above, and some healthcare staff. The aim of the programme is to protect the most vulnerable in the society, and to return life to normalcy (BBC News, 2020b).

The UK’s health regulatory body, MHRA, approved the Pfizer vaccine on the 1st of December, 2020. The US FDA gave its approval on the 8th of December, 2020. The “Pfizer BioNTech vaccine must be stored at a temperature of -07C”, and the US has ordered more than 600 million doses of the vaccine. Two other major vaccines in the pipeline are “Moderna’s mRNA, and Oxford University/AstraZeneca vaccines (CCN, 2020b).

Egypt has also ordered about 10 million doses. Despite its huge trial successes in Europe and the US, huge challenges still remain with the Pfizer/BioNTech vaccine with regards to the alarm being raised about its equitable access, logistics, distribution, and, perhaps most significantly, cost.

3. METHODOLOGY

We conducted a cross-sectional research through non-probability and purposive sampling with 250 respondents. We also employed face-to-face interviews, structured closed-ended and open-ended Questionnaires which were administered online through email application via Google Forms (as a result of the novel, dreaded, and disruptive Covid-19 pandemic). The study also examined relevant literature, including published articles, books, annual reports and other internal company documents. In analyzing and presenting the data from the interviews and the secondary reports, we employed a qualitative research methodology using a thematic content analysis. Thematic analysis is a method used for systematically identifying, organizing and offering insight into patterns of meaning (themes) across a dataset (Braun and Clarke, 2012). This method is mostly recommended for working with qualitative data as it enables a researcher to actively enter the worlds of native people and render those worlds understandable from the standpoint of a theory that is grounded in the behaviour, languages, definitions, attitudes and feelings of those studied (Denzin, 2017).

4. RESULTS OF FINDINGS AND DISCUSSION

4.1. Formation of the National Covid-18 Team

The National COVID 19 Team includes, the Presidential adviser on health who is an experienced medic and former Director of Health Services (Dr. Nsiah Asare), Dr. Anarfi Asamoah-Baah a former Deputy Director-General of WHO directly appointed to coordinate issues to do with COVID 19 at the Presidency; as well as the newly appointed Deputy Minister of Health (Dr Okoe-Boye) with Medicine and Public Health background to replace one with Law and Finance background. Ghana has two equipped centres of excellence namely; the Noguchi Memorial Institute of Medical Research (NMIMR) in Accra and the Kumasi Centre for Collaborative Research (KCCR) in Kumasi responsible for testing samples from the Southern and Northern Sectors respectively.

Academics at the Kwame Nkrumah University of Science and Technology (KNUST) and other institutions have been producing alcohol-based hand sanitizers to supply the Ashanti Region and beyond since COVID 19 was reported in Ghana. The College of Engineering of KNUST has also designed and constructed a ventilator called 'IBV and KNUST Ventilators' which is awaiting clinical testing. In addition, Scientists at KNUST together with Incas Diagnostics (a diagnostic company), have created a Rapid Diagnostic Test (RDT) kit to help test for the novel coronavirus. The Centre for Plant Medicine Research (CPMR) serves at the point of authenticating and integration of herbal medicine claims into the COVID 19 management and treatment protocols.

The President in his address to the Nation on 5th April, 2020 indicated that the government was collaborating with the Ghana Academy of Arts and Sciences (GAAS) and the Council for Scientific and Industrial Research (CSIR) on how to harness well-researched indigenous and modern knowledge in the fight. He also praised a young man who had invented a solar-powered hand washing machine. The Ghana Standards Authority (GSA) has since waived off a certification fee of Twenty-Thousand Ghana Cedis (GHC20,000) and has seen to the expeditious certification of the sample for mass production as soon as practicable. Government is also supporting some local companies in the production of face masks, surgical gloves, scrubs and other PPEs. All locally manufactured products will undergo testing and certification by the Ghana Standards Authority and the Food and Drugs Authority.

4.2. Involvement of Science, Technology and Innovation

The Ghana Health Service (GHS) has been at the forefront of the battle and influencing government in decision making as far as the COVID 19 pandemic is concerned. This body is responsible for implementation of health-related national policies under the control of the Ministry of Health and together with the Ghana Medical Association have been involved in public education on COVID 19 prevention, testing and treatment. The

Telecommunication Companies in Ghana have been assisting the Ghana Health Service (GHS) with the necessary data for effective contact tracing. The Ghana Health Service (GHS) runs a real-time online monitoring system for COVID 19 in Ghana. It also advises the government on strategies for an effective contract tracing and management of COVID 19.

4.3. Sequencing of SARS-CoV-2

On the 11th of April, the University of Ghana released information on the successful sequencing of SARS-CoV-2 from fifteen confirmed cases in Ghana by scientists at their West African Centre for Cell Biology of Infectious Pathogens (WACCBIP) in collaboration with the Noguchi Research Institute of Medical (NMIMR) all in Accra.

4.4. Launching of Covid-19 Tracker App

On 13th April, 2020, the Vice President of Ghana launched the Ghana COVID 19 Tracker App. He said “It will help us easily track people with the virus, and those who have had contact with others. It is also useful in quarantine reliability, in case certain individuals need self-quarantine”. A couple of weeks prior to this, Prof. Ellis Owusu-Dabo, the Dean of School of the Allied Health and his team at the Kwame Nkrumah University of Science and Technology (KNUST) had developed a similar tracking app called Covid-19 TECHBOT. It goes without saying that the global shortage of PPEs and medical supplies has forced the country to look inward and harness resources and potential to design and produce locally what is needed for the COVID 19 battle.

4.5. Regular Presidential Addresses

On the 12th of March, 2020, a day after the World Health Organisation (WHO) declared COVID 19 a pandemic, the President of Ghana gave the first of what will become a regular feature in the COVID 19 response agenda to the entire nation. He presented the readiness of the Country and added that the Government of Ghana (GoG) had plans spending One Hundred Million Dollars (\$100 Million) on interventions such as expansion of infrastructure, procurement of Personal Protective Equipment (PPEs), materials and equipment, and public education among others. He advised the populace to avoid foreign travel as much as possible and gave the assurance that all points of entry including land borders and airports were ready to screen all incoming travellers.

On the 13th of March, 2020, the President addressed the nation once more to repeat an earlier report by the Minister of Health together with the Minister of Information on the first two confirmed cases of COVID 19. He re-echoed the need for all and sundry to adhere to the COVID19 social etiquette in order to prevent the spread. He emphasised that the COVID 19 fight is not only a government issue but required all stakeholders to get on board and cooperate with the government. So far, there have been such presidential addresses on the 15th March, 17th March, 21st March, 5th April and 9th April, 19th April 26th April, 10th May and 31st May, 2020. These addresses offer updates on confirmed cases as well as legislated directives.

4.6. Legislation

The President of Ghana has passed four Executive Instruments (Executive Instruments, 2020) to offer a legal backing to the directives issued in respect of the COVID-19 containment strategy made so far. They are; E.I.63 on ‘Establishment of Emergency Communications System-Instrument, 2020, gazetted on 23rd March, 2020; E.I. 64 on ‘Imposition of Restrictions (Coronavirus Disease (COVID-19) Pandemic) Instrument, 2020, gazetted on 23rd March, 2020; E.I.65 on ‘Imposition of Restrictions (Coronavirus Disease (COVID-19) Pandemic) (No.2) Instrument, 2020, gazetted on 30th March, 2020 and E.I. 66 on ‘Imposition of Restrictions (Coronavirus Disease (COVID-19) Pandemic) (No.3) Instrument, 2020, gazetted on 3rd April, 2020.

4.7. Directives on Restricted Movement

These have ranged from an initial directive on the indefinite closure of universities, schools, churches, mosques and a ban on all public gatherings on 15th March, 2020 to the imposition of a lockdown on the two epicentres namely the Greater Accra Metropolitan Area and the Greater Kumasi Metropolitan Area on the 27th of March, 2020. It is interesting to note that, the stance of the National Identification Authority (NIA) to continue its mass

registration exercise in the Eastern region after the President's ban on public gatherings was challenged in court by two individuals with the Ghana Medical Association threatening a strike. Though the court ruled in favour of the NIA, it decided to call off the registration exercise during this pandemic. On the 21st of March, 2020, the President of Ghana ordered the closure of all the country's borders (land, sea and air) to all human traffic and directed a 14 –day mandatory quarantine and testing for all travellers (Ghanaians or residents) from countries with more than 200 COVID 19 cases. At this time, Ghana had recorded nineteen (19) COVID 19 Cases. This was followed by a release on 23rd March, 2020, from the Ghana Tourism Authority ordering the closure of all beaches in the Country.

In solidarity with the Government's directive on social distancing, the Chairman of the Kwahu Traditional Council, Daasebre Akuamoah Agyapong II in a press release on the 26th of March, 2020, signed by the Registrar of the Council, directed all natives of Kwahu outside of the jurisdiction (either in Ghana or abroad) to remain wherever they are and not to attempt to move into the Traditional Area. He said "Kwahus living in Kwahu should remain in Kwahu. No travelling outside of Kwahu until the pandemic is contained."

These directives were given due to the culture of 'Easter Homecoming' among the Kwahu. He added that because Kwahu has a large aged population, any mingling with outsiders could expose the already vulnerable group. Though traditional rulers are recognised in Ghana, the legitimacy of the King's perceived order was interrogated by the public and the Traditional Council had to clarify that their press release was an advice.

4.8. Public Education and Stakeholder Engagement

The Government of Ghana (GoG) since the inception of COVID 19 in Ghana has interacted with faith based organisations, traditional rulers, market women, owners of public transport, pharmaceutical manufacturers and industries, leadership of parliament and others on how best they can partner government and use their various platforms to help in public education, expansion of infrastructure and local manufacture of Personal Protection Equipment (PPEs) and other materials needed. Education materials have been translated into eight (8) local languages for effective dissemination. The use of skits and recorded messages by social media influencers have enhanced the coverage.

There have been periodic press briefings led by the Minister of Information with the Media which serves as a channel for information flow and a feedback mechanism from the Government to the Populace and vice versa. Most of the Media outlets continue to offer free airtime and space for public education on COVID 19 and the response strategies. On the 4th of April, 2020 the President met with the leadership of political parties in opposition to discuss how they could collectively tackle the COVID 19 pandemic. Though the current public education strategy is all-embracing, the exigencies of life make adherence to the social etiquette nearly impossible for the underserved in society.

Reacting to conspiracy theories being spun around by a section of the media in this period of pandemic, the President at a meeting held on the 26th of April, 2020 with the leadership of the National Media Commission, journalists and media houses among others, admonished reporters to allow "the science to do the talking" and avoid the spread of fake news.

4.9. The National Covid-19 Trust Fund

The President of the Republic, Nana Addo Dankwa Akufo-Addo, on Sunday, 29th March, 2020, inaugurated the Board of Trustees of the COVID-19 National Trust Fund, at a brief ceremony at Jubilee House, the seat of the nation's Presidency. The Board of Trustees, which is chaired by former Chief Justice, Sophia Akuffo, will receive contributions and donations from the public to assist in the welfare of the needy and the vulnerable. The other members of the Board are Archbishop Justice Ofei Akrofi, Mr. Jude Kofi Bucknor, Gifty Afenyi-Dadzie, Mrs Elsie Addo-Awadzie, Dr. Ernest Ofori-Sarpong, Dr Tanko. Mr. Collins Asare will act as Secretary to the Board. As a critical Sector of the economy, the Ministry of Health seeks to improve the health status of all people living in Ghana thereby contributing to Government's vision of universal health coverage and a healthy population. Since

the detection of COVID 19 in Ghana, there have been countless cash and kind donations from individuals, churches, the private sector, the aviation industry, the political parties and various entities from all spheres of the country. Some of these donations were made directly to hospitals, research centres, prisoners, the destitute, etc. while others were made to the government.

4.10. Distribution of Food Items to the Vulnerable

The Ministry of Gender and Social Protection in collaboration with National Disaster Management Organisation (NADMO), Metropolitan, Municipal and District Chief Executives (MMDCEs) and Faith-based Organisations have been involved in the distribution of food and other supplies to the underprivileged within the Communities under lockdown. Though the experts had advised a total lockdown as the key to eradicating community spread in the two epicentres, the government was faced with the dilemma of the inconvenience it will have on the have-nots who have to live from hand-to-mouth and the economic implications of the stimulus packages thereof.

4.11. The Financial Sector and Stimulus Package

On the 16th, 18th and 22nd of March, 2020, the Bank of Ghana (BoG) and the Ghana Interbank Payment and Settlement Systems Ltd (GhIPSS) came up with measures such as ease of transaction and waiver or reduction of online transaction charges, to cushion the public who undertake online transactions as well as discourage the use of cash so as to prevent the spread of COVID 19. In addition, the BoG has reduced the monetary policy rate by 150 basis points to 14.5 percent as the central bank bids to stimulate the economy and shield the impact of COVID19. The Bank of Ghana has also provided a 1.5% decrease in the Policy Rate and 2% in reserve requirement with a Three Billion-Cedi (GHC3 billion) facility, to support industry especially in the pharmaceutical, hospitality, service and manufacturing sectors. There is also a 2% reduction in interest rate among others.

The President during his addresses to the nation on the 5th and 9th of April, also announced the provision of free water supply and 50% waiver on electricity consumption for residents from April-June 2020. Front line health workers have been offered a 50% increase in basic salary and a Life Insurance Cover of GHC350,000 per head in addition to all other stimuli which the public is enjoying. As a way of cushioning importers from losses due to the lockdown and its restrictions, the government waived rent charges and demurrages for the months of March and April. Taking a cue from the formation of the National fund, leaders in certain localities have also set up support funds to help the less privileged under their jurisdiction. Notable among them is the One Million Ghana-Cedi fund, set up by Otumfuo Osei Tutu II, King of the Ashanti Kingdom on 1st April, 2020.

The Ghana Revenue Authority has come up with flexible terms such as a 2-month extension of annual tax returns and field auditing and a waiver of penalties for taxpayers who redeem their outstanding debts by 30th June, 2020. The President in his address to the Nation on 27th March, 2020, mentioned that “Government, in collaboration with the National Board for Small Scale Industries (NBSSI), Business & Trade Associations and selected Commercial and Rural Banks, will roll out a soft loan scheme up to a total of Six Hundred Million Ghana Cedis (GH¢600 million), which will have a one-year moratorium and two-year repayment period for micro, small and medium scale businesses.” In recognition of the key role the media continues to play in Ghana’s COVID 19 response, the Government through the Deputy Minister for Information, donated PPEs to the media on the 5th of May, 2020.

4.12. Disinfection of Markets and Lorry Stations

The Minister of Local Government and Regional Development in response to the President’s order started disinfection of all open spaces, markets and lorry stations in the Country starting from the Greater Accra Metropolitan Area on 23rd March, 2020 as a precautionary measure against community transmission.

4.13. Amnesty to Prisoners

On the 26th of March, the President granted amnesty to eight hundred and eight (808) prisoners upon the recommendation of the Prison Service Council and in consultation with the Counsel of State in accordance with the Ghana Constitution. This was intended to ease overcrowding in the prisons as a response to COVID 19.

4.14. Expansion of Infrastructure for testing, treatment and management

Though the Noguchi Institute of Medical Research (NIMR) and the Kumasi Centre for Collaborative Research (KCCR) have been the designated institutions for testing COVID 19 from the onset, the increase in the demand for more testing as the days go by has resorted in the establishment of eight (8) additional testing faculties dotted across the Country to help the situation. Also in the quest to shorten the time between sample taking and testing in remote communities, “Zipline” Company which is in charge of medical drones in Ghana started transporting COVID 19 test samples from April, 2020 and this has eased the stress associated with waiting for many days before status is confirmed.

On the 17th of April, the President of Ghana did a virtual sod-cutting of a 100- bed isolation and treatment facility in the Ga East Municipality. A number of centers have also been secured around the country with the private sector and faith-based organizations championing the cause in some instances. It is gratifying to note that the COVID 19 pandemic and its challenges have driven the government to pay more attention to the health sector. This was admitted by the President in his address on the 26th of April, 2020, where he announced plans to start the construction of eighty-eight (88) new district hospitals to be completed within a year. He added that regional hospitals were also to be constructed in the six (6) newly created regions of the country. On 24th July, 2020, the Vice President commissioned a 100-bed Infectious Disease and Treatment Centre.

4.15. Gradual Ease of Restrictions

The President on 19th April, 2020, during his address to the nation, lifted the lockdown imposed on the Greater Accra and Greater Kumasi Metropolitan areas and encouraged the wearing of face masks in all public places. At this point the COVID 19 statistics was; 641 positive cases out of 50,719 persons tested. Categories under the 641 confirmed cases are; 548 mild/responding to treatment, 83 recovered, 2 critical/moderately ill and 8 deaths. Though the numbers had increased significantly since the last update, the government indicated that the timing was good since an aggressive contact tracing had been done and all residents at risk had had their samples taken, though some samples were yet to be tested. The President added that his decision was based on science and data. The news was received with mixed reactions with some asserting it was premature and others hoping that was the best for the economy. Though the lockdown was lifted, other restrictions remained in place.

On the 26th of April, 2020, the President of Ghana during his address to the nation re-iterated the order of compulsory wearing of masks in public places. The days that followed saw the police inspecting masks and asking residents who were seen in public without masks to go home. The Minister of Aviation on the 29th of April, issued a statement that domestic flights which were grounded during the period of the lockdown would resume operations from the 1st of May, 2020. He assured the general public that the airports are safe after a thorough disinfection exercise.

Though the number of COVID 19 cases in Ghana keeps increasing due to enhanced testing, the President of Ghana during his 10th Update to the nation on the 31st of May, 2020, lifted some restrictions on public gathering. Public Schools and Universities are to be reopened for only final year students to complete their studies and write their respective examinations. Churches and mosques are to resume but restricted to not more than 100 people at a time and not exceeding a duration of 1 hour. Other activities like conferences, weddings, workshops, private burial, and restaurant operations were to be open but restricted to a maximum of 100 persons at a time. All other bans were to remain. Public institutions like the Electoral Commission and National Commission for Civic Education were to resume their duties bearing in mind all the safety protocols.

The COVID 19 situation at this time stood at; 218,425 tests conducted, 8,070 confirmed cases, 2,947 recoveries and 36 deaths. Though the President attributed the government's decision to advice from experts (citing our low

death and hospitalization rates) and multi - stakeholder consultation on the way forward, a section of the public continues to question government's motivation behind these choices.

4.16. The Production of Nose Masks and Hand Sanitizers

The production of nose masks and hand sanitizers began in the month of April, 2020. All major markets across the length and breadth of the country were disinfected. On 10th April, 2020 Professor Jacob Plange-Rhule, Rector of the Ghana College of Physicians and Surgeons died from Covid-19 at the University of Ghana Medical Centre in Accra (Africanews, 2020). The Ministry of Education in conjunction with "Zoomlion (a local Waste Management Company)", joined forces to fumigate all senior high, special and technical schools in the country in a bid to curb the spread of the pandemic. On 19th April, 2020 the partial lockdown that had been imposed three weeks earlier was lifted. On 30th April, 2020 the total number of Covid-19 infected cases came to 2,074, with 212 recoveries and 17 deaths. It is worthy to note that the Savannah, Bono, Ahafo, and Bono East regions had still not recorded any cases yet.

4.17. Imposition of Restrictions

On the 10th of May, 2020 the Government extended the restrictions till the end of May. But on 11th May, 2020 the Government granted permission to hotels, bars and restaurants permission to reopen, but under enhanced social distancing protocols. On 19th May 2020, "695 persons tested positive" at a fish processing factory in Tema after a worker contracted the virus and infected over 500 of his colleagues (Graphic Online, 2020h). On 20th May 2020, "30 health workers" tested positive for the virus at the Kumasi Centre for Collaborative Research (KCCR) in their line of duty in the Ashanti region (Daily Guide, 2020). On the 29th May 2020, about 50 workers working at the offshore Jubilee Field operated by Tullow Oil tested positive to the virus (Graphic Online, 2020i). By 31st May 2020, 218,425 tests had been conducted, with 7,881 testing positive, 2,841 recoveries, 36 deaths, and 5,087 active cases.

With effect from the beginning of June there was some relaxation of restrictions. Religious services were allowed to commence effective Friday, 5 June, with mandatory use of nose masks and with congregations not exceeding 100. Private burials with a maximum attendance of 100 persons were allowed. Similarly weddings and other social gatherings could take place with no more than 100 people attending. Ghana's borders remained closed. According to the new Executive Instrument, E.I. 64, signed by the President on 15 June 2020, people who refuse to wear face masks in public could face jail terms of between 4–10 years or a fine of between GHC12,000 (approximately US\$2,065) and GHS60,000 (approximately US\$10,320) or both would be made.

4.18. Revised Recommendations by WHO

Government calmed fears over the implementation of the new COVID-19 discharge policy which was in line with the WHO revised recommendations that allowed for asymptomatic COVID-19 patients to be discharged after 14 days without test. On 13 June 2020, the Minister of Health tested positive for the disease and was admitted at the University of Ghana Medical Center in Accra. The President also confirmed that the Chief Executive of the Sekondi-Takoradi Metropolitan Assembly, Kobina Kurentsi Sam (Graphic Online, 2020j), had passed away due to COVID-19. On 16 June 2020, the CEO of the National Health Insurance Authority (NHIA), tested positive for the virus. On 24 June 2020, the Education Minister was detained at the UGMC over fears of the virus infection. Member of Parliament for Okere was admitted at the same facility with the Education Minister (Graphic Online, 2020k).

4.19. Cancellation of the 2020 Hajj Pilgrimage

On 23rd June 2020, the National Hajj Board decided to refund monies paid by potential pilgrims as Saudi Arabia had refused to accept visitors from outside the Kingdom as a result of the Covid-19 pandemic. On 25th June 2020, about GHC25 million was distributed to some institutions from the National Covid-19 Trust Fund. On 28th July 2020, transport fares were reduced by 10% after operators were allowed to take full capacity. A former General

Secretary of the New Patriotic Party died after testing positive for COVID-19 at the Intensive Care Unit of Korle-Bu Teaching Hospital. Campaign manager for New Patriotic Party and the Deputy Minister for Trade and Industry tested positive for COVID-19 and were admitted at the Korle-Bu Teaching Hospital. A Consultant Surgeon of the Trust Hospital died after testing positive for COVID-19. He is the fourth medical doctor to succumb to the disease in Ghana (Graphic Online, 2020).

4.20. The President Self-Isolates for Covid-19

The president of Ghana, Nana Akufo-Addo went for a 14-day self-isolation after a person within his close circle tested positive for COVID-19. Six Accra Girls SHS students tested positive for COVID-19. The president completed his two weeks self-isolation of the coronavirus. The Korle-Bu Teaching Hospital announced the suspension of non-emergency surgical cases for two weeks to protect clients and staff from being infected with COVID-19. Senior Minister, Hon Osafo Maafo, tested positive for COVID-19 and was confirmed by the Information Minister. On July 21, the MP for Assin Central, Kennedy Agyapong revealed he tested positive for COVID-19 after he celebrated his 60th birthday on June 16, 2020.

4.21. The Chief Justice Self-Isolates for Covid-19

The Chief Justice returned to office after he went for 14 days isolation from the public, since the 8th of July, 2020. Ghana's Supreme Court adjourned all cases which were scheduled in July. The COVID-19 National Trust Fund spent over GHC32 million Ghana cedis to aid in the fight against COVID-19 in Ghana. The Minister for Information discredited the government's response strategy to COVID-19 failed. The Government distributed 50,000 PCR testing kits and other kits to COVID-19 testing facilities across Ghana. Government spent US\$35 million on testing for COVID-19 suspected cases. This amount was not part of the expenditure on the expansion of testing capacity according to the Deputy Health Minister. The Finance Minister claimed in his report that the Government spent about GHC54.3 million Ghana cedis to provide cooked and uncooked food to the vulnerable during the three-week lockdown.

4.22. Ghanaian Nurses on Loan to Barbados Test Positive to Covid-19

On Sunday, 2 August 2020, according to the acting Chief Medical Officer of Barbados, Dr. Kenneth Georgeit, nine out of the 95 Ghanaian nurses who travelled to Barbados to work for two years have tested positive for COVID-19. A new COVID-19 Business Tracker Survey conducted by the Ghana Statistical Service (GSS), in collaboration with the United Nations Development Programme (UNDP), and the World Bank showed that about 770,000 workers (25.7% of the total workforce), had their wages reduced and about 42,000 employees were laid off during the country's COVID-19 partial lock-down. Parliament of Ghana approved a tax waiver on income taxes of GHC174 million cedis (equivalent to US\$30 million) for front line health workers.

4.23. Reopening of Borders

President Nana Akufo-Addo chose 1 September 2020 as the date to reopen the borders which have been closed due to the outbreak of COVID-19 in Ghana. On that same date, the Deputy Health Minister justified the \$150 fee charged for the antigen testing at the Kotoka International Airport. Data from the NBSSI indicated that about 120,000 out of the over 700,000 who applied for the CAP Business Support Program were said to have received financial support. Government claimed it spent over GHC76 million in the disinfection, fumigation and cleaning-up of markets, lorry parks and other social amenities across the country. The Ministry of Finance claimed there was an increase in cost of servicing the national debt which was caused by the shock brought about by COVID-19 which caused revenues to fall.

4.24. Signs of Economic Recovery

The Finance Minister claimed there is a possible post-COVID-19 economic recovery and attainment of SDGs with digitization, increase in private capital etc. The Governor of the BoG claimed the economy of Ghana began to experience some recovery as price pressures which was a result of the COVID-19 pandemic restrictions and lock

down. GSS revealed in a survey that about 90 per cent of businesses in Ghana recorded low sales during the lockdown period. Government extended the free water package to the end of 2020 due to COVID-19.

The President donated 10,000 beds to the MoH for distribution to health centers across Ghana. Government supported entrepreneurs with disability in the Northern, North East and Savannah regions with an amount of GHC200,000 to help them in their businesses due to the impact of COVID-19. According to the Information Minister, the Government took note of new waves of the virus in Europe and the US. He also called on Ghanaians to keep on adhering to the COVID-19 protocols to prevent a new wave of infections. He also claimed that the testing regime that was used at KIA would help prevent the importation of the virus. According to the Deputy Minister for Foreign Affairs, 2,262 Ghanaians in Lebanon were evacuated during the COVID-19 lock down and an amount of \$1,062,600 was spent.

4.25. IMF Cautions Ghana and Other African Countries

The IMF cautioned Ghana and other African countries on debts due to the crisis caused by the pandemic. According to the GIPC, the country clearly cruised from the impacts of the pandemic compared to other countries. Government with the support of WFP disbursed an amount of GHC11 million to vulnerable people in three regions in the country. The Government through the Deputy Minister for Trade claimed about 18.8million face masks were manufactured in the country, and also more than 10,000 jobs were created locally for PPE production. Government claimed it spent about GHC11.788 billion and created more than 350,000 jobs across Ghana and also saved \$16.8 million. An economist claimed the effect of COVID-19 on economies might go beyond a century. A research conducted by AGI revealed about 89% of businesses were affected by COVID-19. According to the Finance Minister, about 19 SOEs lost about GH¢1.6 billion because of the pandemic. Ghana's maritime sector was disrupted by the pandemic as it impacted the shipping industry with drops in imports and exports. Government claimed a 100-bed Infectious Disease Center would be opened to help fight against the virus. The Chairperson of the COVID-19 National Trust Fund claimed the Fund was in need of funds to undertake its duties.

4.26. Reopening of Borders and Stimulus Packages

On 1 September, the air borders of the nation were reopened. On 31 August, the MoH claimed Ghana has put in place enough measures to detect possible COVID-19 cases at KIA. According to the Director of the GHS, children under the five years, air crew and passengers on transit would not undergo testing for COVID-19 at the Kotoka International Airport. Travelers that arrive in Ghana by air were expected to pay US\$150 for COVID-19 test as part of measures to control the spread of the virus in Ghana. On 14 October, the Board of Executive Directors of the World Bank gave an approval of US\$12 billion for 111 countries to finance the buying and distribution of COVID-19 vaccines and other items for their citizens.

On 11 November, Ghana's World Bank Country Director claimed an amount of US\$130 million was approved for the country to support those affected by COVID-19. In June 2020, Ghana was ranked as the country with the fourth-highest number of COVID-19 cases in Africa with 12,929 cases. Ghana was ranked as the 'best' responsive country in Africa on COVID-19 prevention measures and other factors in a report by Yicai Media Group.

In a survey in October, 2020, about 3% of Ghanaian participants were scared their companies would not survive the COVID-19 crisis. In October, the Finance Minister claimed Ghana was among the 'best' 3 countries in the world to have managed the crisis during the pandemic. Ghana's Trades Union Congress (TUC), revealed an estimated 100,000 job losses in the formal sector and 400,000 in the informal sector after a market research. All these jobs were lost in less than 6 months after the first COVID-19 case in March, 2020.

5. CONCLUSION AND RECOMMENDATIONS

5.1. Control and Prevention

Measures for protecting workers from exposure to, and infection with, SARS-CoV-2, the virus that causes Coronavirus Disease 2019 (COVID-19), depend on the type of work being performed and exposure risk, including potential for interaction with people with suspected or confirmed COVID-19 and contamination of the work environment. Employers should adapt infection control strategies based on a thorough hazard assessment, using appropriate combinations of engineering and administrative controls, safe work practices, and personal protective equipment (PPE) to prevent worker exposures. Some OSHA standards that apply to preventing occupational exposure to SARS-CoV-2 also require employers to train workers on elements of infection prevention, including PPE.

OSHA has developed this interim guidance to help prevent worker exposure to SARS-CoV-2. The general guidance below applies to all U.S. workers and employers. Depending on where their operations fall in OSHA's exposure risk pyramid (Spanish), workers and employers should also consult additional, specific guidance for those at increased risk of exposure in the course of their job duties broken down by exposure risk level.

5.2. General Guidance for All Citizens

For all citizens, regardless of specific exposure risks, it is always a good practice to:

- Frequently wash your hands with soap and running water for at least 20 seconds. When soap and running water are unavailable, use an alcohol-based hand rub with at least 60% alcohol. Always wash hands that are visibly soiled.
- Avoid touching your eyes, nose, or mouth with unwashed hands.
- Practice good respiratory etiquette, including covering coughs and sneezes.
- Avoid close contact with people who are sick.
- Stay home if sick.
- Recognize personal risk factors. According to the U.S. Centers for Disease Control and Prevention (CDC), certain people, including older adults and those with underlying conditions such as heart or lung disease or diabetes, are at higher risk for developing more serious complications from COVID-19.

5.3. Identify and Isolate Suspected Cases

- In workplaces where exposure to COVID-19 may occur, prompt identification and isolation of potentially infectious individuals is a critical first step in protecting workers, visitors, and others at the work site.
- Wherever feasible, immediately isolate individuals suspected of having COVID-19. For example, move potentially infectious individuals to isolation rooms. On an aircraft, if possible and without compromising aviation safety, move potentially infectious individuals to seats away from passengers and crew. In other work sites, move potentially infectious individuals to a location away from workers, customers, and other visitors and with a closed door, if possible.
- Take steps to limit the spread of the individual's infectious respiratory secretions, including by providing them a facemask and asking them to wear it, if they can tolerate doing so. Note: A surgical mask on a patient or other sick person should not be confused with PPE for a worker; the surgical mask acts to contain potentially infectious respiratory secretions at the source (i.e., the person's nose and mouth).

The COVID 19 pandemic threat has shaken the core of human existence and countries have found themselves running after the pandemic instead of having a strategy to face it head-on. The interventions outlined here highlight what has been done for the benefit of the public. The successes chalked could be attributed to the prompt response by government and multi-sectoral engagement. These responses have sometimes been saddled with challenges such as adherence to social distancing particularly in poorly structured markets and slums around the regional capitals, implementation challenges such as improper addressing systems for proper contact tracing, isolated cases of abuse of citizenry by enforcement officers with occasional outbursts by the Opposition when their expectations don't converge with those of government.

Weathering through the COVID 19 pandemic has shown the resilience of the Ghanaian people in adversity and has also laid bare the cracks in the society and the urgency to tackle them. There is no doubt that Science and Technology stands tall in this fight considering all the evidence before us. Governments all over the world therefore need to commit to the establishment of a National Research Fund to support basic and applied research.

Due to the unbridled spending on the part of ALL governments, the Fiscal Responsibility Act to cap the budget deficit not to exceed 5% for any fiscal year was passed in 2018. However, the Act's applicability remains to be seen in fiscal year 2020 as the International Monetary Fund (IMF) in its October, 2020 Fiscal Monitor Publication, has predicted that Ghana's fiscal deficit will reach 16.4 percent of GDP this year (up from the initial government projection of 4.7 percent of GDP), the largest in the country's history. This projection is not only the highest in Ghana's history, but will also become the biggest deficit in sub-Saharan Africa.

One of our major recommendation was that with the approval of Pfizer/BioNTech Covid-19 vaccine by the UK's MHRA on 1st December, 2020 (BBC News, 2020b); and subsequently by the US FDA a week later on 8th December, 2020 (CNN, 2020b), all governments around the globe in general, but Africa in particular, must make conscious efforts backed by adequate budgetary allocations to secure maximum quantities of the vaccines for their vulnerable teeming population. This is because despite its huge trial successes in Europe and the US, huge challenges still remain with the Pfizer/BioNTech vaccine with regards to the alarm being raised about its equitable access, logistics, distribution, and, perhaps most significantly, cost.

This chronicle of Ghana's COVID-19 response has key lessons for Africa and the entire developing world. Some economists cautioned of the potential consequences of the partial lockdown and general restrictions on economic growth, considering the fact that public sector expenditure is on the increase to meet specific COVID-19 financial stimulus and other social intervention demands. Was the lifting of the lockdown by the Ghana Government premature? The Government of Ghana continues to roll out directives to open up the economy and bring life back to "normalcy". Could the Government have sustained the initial interventions any longer? Could the Government of Ghana have done the management of the Covid-19 pandemic differently? The verdict is yours.

References

- Africanews (2020). "Africa's top coronavirus deaths: Professor Jacob Plange-Rhule; Ghana loses a renowned physician". www.africa news
- Anand, P. (1993). "Foundations of Rational Choice Under Risk", Oxford: OUP
- Anyorigya, D. (2020). "Coronavirus: Norwegian Embassy in Ghana shuts down after staff member tested positive". 12th March, 2020; Citi Newsroom.
- Bailey, N. T. J. (1975). *The Theory of Infectious Diseases and its Applications*. Charles Griffin, London.
- Bank of Ghana (2020). Press Release: Monetary Policy Committee Meeting, Accra
- BBC News (2020a). Pfizer/BioNTech announces Covid-19 vaccine breakthrough. 9th November, 2020: www.bbc.com
- BBC News (2020b). First person in the world to receive Covid-19 vaccine injection 1st December, 2020: www.bbc.com
- Bell, D. (1981). "Models and Reality in Economic Discourse". Pp 46-80 in *The Crisis in Economic Theory*, ed by D. Bell and I. Kristol. New York. Free Press
- Bicchieri, C. (1993). *Rationality and Coordination*. Cambridge University Press
- Braun, V. and Clarke, V. (2012). Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, and K. J. Sher (Eds), *APA handbook of research methods in psychology, Vol. 2: Research designs: Quantitative, qualitative, neuropsychological, and biological (57-71)*. Washington, DC: American Psychological Association.
- Coleman, J. S. (1990). *Foundations of Social Theory*
- CNN News (2020a). Pfizer/BioNTech announces Covid-19 vaccine breakthrough. 9th November, 2020: www.cnn.com
- CNN News (2020b). First person in the world to receive Covid-19 vaccine injection 1st December, 2020: www.cnn.com
- DailyGuide (2020). "30 Health Workers test positive for Covid-19 in the AshantiRegion. 20th May, 2020; www.dailyguide network

- Denzin, N. K. (2017). *The research act: A theoretical introduction to sociological methods*. New York, NY: Routledge.
- Downs, A. (1957). "An Economic Theory of Democracy". Harper
- Elster, Jon (1989). *Nuts and Bolts for the Social Sciences*, Cambridge University Press
- Executive Instrument (2020). E.I. 63, Establishment of Emergency Communications System Instrument. Assembly Press, Accra.
- Executive Instrument (2020). E. I. 64. Imposition of Restrictions (Covid-19 Pandemic) Instrument. Assembly Press, Accra.
- Executive Instrument (2020). E. I. 65. Imposition of Restrictions (Covid-19 Pandemic) Instrument (No 2). Assembly Press, Accra.
- Executive Instrument (2020). E. I. 66. Imposition of Restrictions (Covid-19 Pandemic) Instrument (No 3). Assembly Press, Accra.
- Frank, R. H. (1990). "Rethinking Rational Choice". Pp 53-87 in *Beyond the Marketplace*, Edited by Roger Friedland and A. F. Robertson. New York: Aldine.
- Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Boston, MA: Pitman.
- GhanaWeb (2020a). "Panic hits social media as Ghana confirms first cases of coronavirus". 12th March, 2020; www.ghanaweb.com
- GhanaWeb. (2020b). "Coronavirus: MPs to have to have their temperature tested before entering the Chamber. 12th March, 2020; www.ghanaweb.com
- GhanaWeb. (2020c). "Identity of Ghana's first Covid-19 victim revealed. 23rd March, 2020; www.ghanaweb.com
- Graphic Online (2020a). WHO declares Covid-19 a global pandemic. 12th January, 2020; <http://graphic.com.gh/news/general-news>
- Graphic Online (2020b). UK MHRA approves Pfizer/BioNtech vaccine for emergency use. 2nd December, 2020; <http://graphic.com.gh/news/general-news>
- Graphic Online (2020c). US FDA approves Pfizer/BioNtech vaccine for emergency use. 9th December, 2020; <http://graphic.com.gh/news/general-news>
- Graphic Online (2020d). "FULL TEXT: Akufo Addo's address on measures taken to combat coronavirus. 7th March, 2020; <http://graphic.com.gh/news/general-news>
- Graphic Online (2020e). "Coronavirus: Ghana enters into a partial lockdown, all borders and beaches closed. 23rd March, 2020; <http://graphic.com.gh/news/general-news>
- Graphic Online (2020f). "Accra, Tema, Kasoa, and Kumasi under partial lockdown". 28th March, 2020; <http://graphic.com.gh/news/general-news>
- Graphic Online (2020g). "All Ghana Health Service Staff on Study Leave recalled for Coronavirus fight. 28th March, 2020; <http://graphic.com.gh/news/general-news>
- Graphic Online (2020i). "695 persons test positive at a fish processing plant in Tema" 19th May, 2020; <http://graphic.com.gh/news/general-news>
- Graphic Online (2020i). "Tullow Offshore Staff test positive to Covid-19" 31st May, 2020; <http://graphic.com.gh/news/general-news>
- Graphic Online (2020j). "Sekondi Takoradi Metropolitan Assembly MCE dies through Covid-19". 31st May, 2020; <http://graphic.com.gh/news/general-news>
- Graphic Online (2020k). "Minister of Education test positive to Covid-19" 31st May, 2020; <http://graphic.com.gh/news/general-news>
- Graphic Online (2020k). "A former Secretary General of ruling Government succumb to Covid-19 at Korle Bu. 28th July, 2020; <http://graphic.com.gh/news/general-news>
- Hill, C. W., & Jones, G. R. (2012). *Strategic management theory: An integrated approach*. 10 Ed.). South-Western: Cengage Learning.
- Hobbes, T. (1985). *Leviathan*. London. Penguin.
- Hoppensteadt, F. C. (1982). *Mathematical Methods of Population Biology*. Cambridge University Press.
- Howlett, M., & Ramesh, M. (2003). *Studying public policy: Policy cycles and policy subsystems*. Ontario, Oxford University Press.
- Kahneman, D. and Tversky, A. (1979). "Prospect Theory: An Analysis of Decision Making Under Risk". *Econometrica*: 47: 263-91
- Kermack, W. O., and McKendrick, A. G. (1932). A contribution to the theory of epidemics, *Proc. Roy. Soc. (A)* 115 (1972), 700-721, 139 (1932), 55-83.
- Khan, A., & Pessoa, M. (2010). *Conceptual Design: A Critical Element of Government Financial Management Information System Project Technical Notes and Manuals* (Washington: International Monetary Fund).
- Keynes, J. M. (1936). *General Theory of Employment, Interest, and Income*. New York.
- Lindblom, C. E., & Woodhouse, E. J. (1993). *The policy-making process*. Upper Saddle River. NJ: Prentice Hall.
- May, R. M., and Anderson, R. M. (1987). Transmission dynamics of HIV infection. *Nature* (326) pp 37-42

- McKendrick, A. G. (1926). *Mathematics applied to medical problems*. Royal Society, Edinburgh
- Mitnick, B. M. (1993). *Corporate political agency: The construction of competition in public affairs*. Newbury Park, CA: Sage Publications.
- Mitnick, B. M. (1973). *Fiduciary rationality and public policy: The theory of agency and some Consequences*. Paper presented at the 1973 Annual Meeting of the American Political Science Association, New Orleans, L. A.
- Nell, E. J., and Errouaki, K. (2011). *Rational Econometric Man*. Cheltenham: E. Elgar
- Pierre Bourdieu (2005). *The Social Structures of the Economy*. Polity 2005
- Quentin, S. (1978). *The Foundations of Modern Political Thought: The Age of the Reformation* Cambridge.
- Ross, S. A. (1973). The economic theory of agency: The principal's problem. *American Economic Review* 62(2): 134-139
- Shapiro, S. P. (2005). Agency theory. *Annual Review of Sociology*. 31: 4.1-4.22
- Starrfonline (2020). "Covid-19: Ghana goes to IMF, WB for Akufo Addo's \$100 million. 11th March, 2020; <http://starrfonline.com>
- Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20(3), 571-610