

**The “Taiwan Model” for the Containment of COVID-19 Pandemic: Wither the Managerial Philosophy, and Need Developing Countries Take Any Lessons?**

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**Abstract.** This article examines the COVID-19 pandemic experiences of Taiwan intending to contrast it to the African and particularly Nigerian experience with COVID-19. Depending on published literature and personal observation, the article traces the trajectory of the COVID-19 pandemic in Taiwan which spawned what is known today as the Taiwan Model down to the present period to what is now being talked about as ‘a new Taiwan Model’. The article explores the various elements of the Taiwan Model from the works of researchers who have captured the different aspects of the Taiwan Model in their studies. Thus, the article isolates such elements as the workings of the Taiwan Central Epidemic Command Centre, the Taiwanese state, its governance, and societal elements in the Taiwan Model, the systems, organizations, collaborations, and citizens volunteering in the Taiwan Model, the management of frontline nurses’ stress levels, the COVID-19 pandemic management and Taiwanese agri-food e-commerce, and the COVID-19 health waste management in Taiwan. The article also highlights the emerging situation with the so-called new Taiwan Model for the management of COVID-19 and makes an imperative proposal for a systematic investigation of the managerial philosophies and strategies behind the initial successful management of the COVID-19 pandemic in Taiwan and the determination of how these could be successfully transplanted to Africa as well as other parts of the global south in event of future pandemics. To do this, the article noted the need to conduct a cross-sectional sample social survey of those in the managerial spaces of drive Taiwan’s COVID-19 response strategy, to determine these core managerial philosophies and considerations behind their management strategies for the containment of the COVID-19 pandemic in Taiwan because of the excellent results they achieved and to distil the relevant lessons for countries in Africa and by extension the rest of the global south.

**Keywords:** Africa, COVID-19 Pandemic, COVID-19 Management Philosophies, COVID-19 Policy, Nigeria, Taiwan, The Taiwan Model, The New Taiwan Model

**Introduction**

The outbreak of the Wuhan pneumonia otherwise known as COVID-19 marked a great watershed moment in the evolution of global diverse responses to disruptive events that threaten humanity as even though the world was not necessarily ready for it. The COVID-19 pandemic elicited several managerial and policy approaches to dealing with it from different regions of the world (Arukwe, 2022a). Taiwan's approaches in response to the outbreak and progression of the COVID-19 pandemic have been singled out for their success and excellence. This feat was achieved despite Taiwan not being officially included in the World Health Organization following the growing efforts by the People’s Republic of China to shut Taiwan out of international and global organizations (Chang, 2020). Nevertheless, Taiwan was praised internationally for its COVID-19 outbreak efficient and successful management which placed the country in fifth place on Bloomberg’s COVID Resilience Ranking (Deutsche Welle, 2021).

Despite the giant strides that Taiwan made in its COVID-19 pandemic management the international health establishment led by the WHO under the influence of the People’s Republic of China did not necessarily give Taiwan the due that it deserves amidst the high

drama of the period (Chang, 2020). This is one of the reasons why a more detailed and systematic academic study of Taiwan's COVID-19 management successes is imperative and should be of interest to scholars who focus on disruptive disasters such as the COVID-19 pandemic represents as well as their subsequent fallouts.

Also, in other parts of the world especially in Africa, and by extension the rest of the global south, weakening democratic institutions coupled with inefficient and ineffective management strategies hampered the COVID-19 response strategies that were mostly copied from those of the countries of the global north (see Arukwe, 2022a). In some regions of the global south such as in Nigeria, the pandemic helped to catalyse the boiling over of deep-seated cleavages and conflictual relations such as the issues of resistance to bad governance, corruption and police brutality as exemplified in the Nigerian #EndSARS Movement that blossomed during the thick of the COVID-19 pandemic (see Arukwe, 2022b). This inefficiency and failure of management of Africa's COVID-19 response call for not only the need to refocus on home grown solutions on the African continent and elsewhere towards successfully managing future pandemics or outbreaks of the nature of COVID-19 but it also calls for the imperative to learn from other regions of the world that enacted successful models of managing the COVID-19 pandemic to critical acclaim. This is more so as several millions of everyday people on the African continent were put through untold suffering because of a pandemic that more nuanced and democratic strategies could have been helpful and successful in its management.

These millions of people in Africa and the other parts of the global south would no doubt be interested in learning about the excellent managerial approaches that were the hallmarks of Taiwan's COVID-19 response. Beyond that, the academic community would also benefit from a more systematic study that highlights the managerial philosophies behind the Taiwan success story in managing the outbreak of COVID-19 in Taiwan after it assumed pandemic proportions having originated in, Wuhan, in the neighbouring People's Republic of China.

### **A Taiwan Model?**

Following the outbreak of COVID-19 in Wuhan in the People's Republic of China, diverse countries in the world have sought to tackle the pandemic by applying whatever strategies and techniques they deem most suitable to manage the pandemic. Whilst even the great powers of the world struggled to get their acts together in the management of the COVID-19 pandemic Taiwan's efforts shone over and above those of several other countries to be ranked among the top five in the world (Deutsche Welle, 2021). The situation of cross-strait tensions and the international campaign to delegitimize Taiwan internationally and shut down its international space would lead the People's Republic of China and the WHO which they politically control to not only exclude Taiwan but among others to try to trivialize and even erase the international accolades that are due to Taiwan for its COVID-19 management successes (Chang, 2020). Ironically Taiwan is currently blocked from even becoming a World Health Organization (WHO) member as well as has been recently rejected from participating in WHO conferences as an observer. This is even as the WHO as currently constituted continues to come under mounting criticism for its handling of the global COVID-19 pandemic – a sharp contrast to the accolades that Taiwan received for the excellent way it handled the outbreak of the COVID-19 pandemic despite being neighbours with the People's Republic of China where the COVID-19 pandemic originated from. Incidentally, a recent United States Congressional report investigating COVID-19 cover-ups and the mist-steps of the WHO reveals that Taiwan had warned the WHO about the outbreak of the COVID-19 disease in the People's Republic of China before it assumed pandemic proportions as early as December 2019. Taiwan had also alerted the WHO about the risks of

human-to-human transmission of the disease from information available to Taiwan. However, the only response that the WHO gave to Taiwan was that the information Taiwan sent to the organization had been forwarded to WHO ‘experts’, only for the WHO to publish a statement two weeks later saying that the authorities of the People’s Republic of China are yet to find any evidence of human-to-human transmission of COVID-19. This brazen incompetence and double standards were displayed by the WHO despite that the WHO and its regulations are obligated to investigate such reports as the one that was sent to it by Taiwan and share the findings of such reports to member states. Taiwanese officials pointed out that the WHO failed to do or heed Taiwan’s warnings about the COVID-19 outbreak and the human-to-human transmission of the disease because of the influence of the People’s Republic of China on the WHO as the People’s Republic of China is a huge donor to the WHO and has used its financial and political influence on the WHO to object to the inclusion of Taiwan into the organization. Even by late January 2020 when the WHO got evidence of the human-to-human transmission of the COVID-19 virus from other sources, the WHO still decided not to declare COVID-19 a public health emergency while the director of the WHO took a trip to the People’s Republic of China only to go and praise the Chinese Communist Party for their supposed handling of the COVID-19 virus (Meier, 2022).

In Africa, like elsewhere, the COVID-19 pandemic has changed all aspects of lives not least of which is in Nigeria. The COVID-19 pandemic also has implications for the social welfare and health policies as well as overall social organization as we know it moving into the future. The pandemic has among other things shown the need to effectively set up an efficient and effective management system for pandemics and naturally disruptive events. The COVID-19 pandemic has also underscored the importance of the progressive acquisition of knowledge by those in bureaucratic roles, and positions, as well as the public political and technical offices that are constitutionally tasked with ensuring the wellbeing of the citizens, especially when the apparent norm is the prevalence of rampant lack of or low-level of knowledge among both public office holders and the bureaucratic manpower necessary for confronting and transforming the sort of disruptions created by the global COVID-19 pandemic (Arukwe, Offor, & Chime, 2020; 2021; Uzuegbu & Sunday, 2022). This is where the countries of Africa as well as those of other regions of the world could learn a lot from the Taiwan COVID-19 management experience, especially given that the COVID-19 pandemic has continued to disrupt the African health, social, economic, and political landscapes. Health wise a lot of changes are taking place in Africa some of which the implications would be felt well into the future. In Nigeria, for instance, as the COVID-19 pandemic broke out and the populace started to be sceptical about visiting the usually dysfunctional health centres for fear of catching the diseases in these poorly equipped spaces, Indigenous women in the rural areas and other rural-dwelling women have taken the cue to patronise more of Traditional Birth Attendants than orthodox westernized health attendants within the duration of the COVID-19 pandemic. Socially, a lot of community and public gatherings such as in churches or during cultural events like marriage ceremonies have become a lot more conscious about physical contact and people are now very mindful of limiting the number of people in such cultural ceremonial gatherings. Politically, also, the COVID-19 pandemic is indeed leading to disrupting occurrences. Apart from the #EndSARS Movement which was quelled by the shooting to death of the protesters by the Nigerian politicians, the Nigerian youth are currently rallying behind one of the most credible political candidates for the position of president in an unprecedented political revolution that sees Nigerian youths of all ethnicities and religious creed funding the campaign of this candidate with their meagre resources as a way to sweep out the corrupt politicians from office and deliver fitting political retribution to them for inviting to the Nigerian military and the police to shoot down peacefully protesting youths who organized the #EndSARS Movement.

In the case of Taiwan's experience with the COVID-19 pandemic, several studies have been carried out on several components and sometimes tangential aspects of the overall wholesale management of the COVID-19 pandemic. There have been among other instances studies on the aspect of COVID-19 health waste management in Taiwan (Chu & Chang, 2021), how the COVID-19 pandemic management interacted with Taiwanese agri-food e-commerce (Chang & Meyerhoefer, 2020), management of frontline nurses' stress levels during the COVID-19 pandemic (Yang et al., 2021), an examination of the role of the special chemistry between the Taiwanese state, its governance and society in the efficiency and effectiveness of Taiwan's management of the COVID-19 pandemic (Yen, 2020), as well as an examination of the systems and organizations that enabled Taiwan to engender a timely launch of the related initiatives in terms of strategies and policies that were further enhanced by collaborative behaviours and volunteering amongst the citizens (Huang, 2020).

Taiwan's success stories as one of the few countries to successfully contain the COVID-19 pandemic at the pandemic's several initial waves made some scholars and commentators come up with the concept of the Taiwan Model. This apparent blueprint for success in pandemic containment by the Taiwan authorities was attributed by some to the accumulated experiences of the country from its previous grappling with the Severe Acute Respiratory Syndrome, SARS leading to Taiwan's taking of prompt measures to control the spread of the COVID-19 pandemic once becoming aware of the outbreak in Wuhan, Peoples' Republic of China (Chang, 2020). Unlike in the People's Republic of China and elsewhere, Taiwan notably did not have any need for and never went into a lockdown to be able to control the spread of the COVID-19 pandemic (Gunia, 2020). The success and durability of the Taiwan Model of COVID-19 pandemic management have been attributed among other things to Taiwan's leveraging of its democracy to engender transparency and honesty in its management and implementation of its unique prevention strategies to create the model of excellence in fighting the COVID-19 pandemic (Ministry of Foreign Affairs, Republic of China (Taiwan), n.d.).

### **Elements of the Taiwan Model**

#### **The Taiwan Central Epidemic Command Centre**

One of the fundamental steps that were taken by Taiwan in inaugurating the Taiwan Model was that the country swiftly empowered its Central Epidemic Command Centre, CECC, as a subunit of the National Health Command Centre but with sweeping powers to make policy on a broad range of issues concerning the management of the COVID-19 pandemic such as border control, quarantine, resource allocation and surveillance (Chen et al., 2020). Given Taiwan's experience with previous epidemics and public health crises, the Central Epidemic Command Centre normally serves as some sort of crisis station for relevant departments of the executive branch in times of health emergency or disease outbreaks (Taiwan's Ministry of Health and Welfare 國際合作組, 2020). The leadership of Taiwan's Central Epidemic Command Centre consists of experts in their various fields that guide pandemic prevention measures and policy programmes to the Taiwan populace (Ministry of Health and Welfare, Republic of China (Taiwan) 國際合作組, 2020). Also, the Central Epidemic Command Centre operates public hotlines, that are dedicated to providing the Taiwanese public and residents with open and transparent answers and responses to their questions related to the corona virus and the COVID-19 pandemic (Ministry of Health and Welfare, Republic of China (Taiwan) 疾病管制署, 2020).

Taiwan's Central Epidemic Command Centre was able to leverage the prevalent smart technology in the country to achieve a relatively low infection and the death count by instituting very highly effective contact-tracing investigations that were conducted as soon as

the Centre received reports of COVID-19 cases (Ministry of Health and Welfare, Republic of China (Taiwan) 國際合作組, 2020). To this end, travellers coming into Taiwan are subject to home quarantine for 14 days and they are never allowed to mingle with the rest of the population just on arrival so they are required not to take transportation when leaving the airport rather they must take specially designated taxis or rental cars. Taiwan's Central Epidemic Command Centre ensures that there is constant check-in at least once a day with new arrivals in the county as well as those who are required to be on home quarantine. The same goes for those that have had close contact with confirmed cases, and Taiwan's Central Epidemic Command Centre ensures that there is the constant monitoring of the cell phone signals of people in quarantine or home self-management to be sure they do not leave their locations or residences (Ministry of Health and Welfare, Republic of China (Taiwan) 國際合作組, 2020).

### **The Taiwanese State, its Governance, and Societal Elements in the Taiwan Model**

Yen (2020) uncovers the aspects of the Taiwan Model that relates to the Taiwan state, its governance as well as societal characteristics working in synergy to help engender the Taiwan Model. Yen, who favours the crisis management framework, identifies three major elements in Taiwan's successful response to the COVID-19 pandemic.

In the first instance, Yen (2020) observes that the Taiwan government depended on a familiar face mask policy to address the COVID-19 pandemic. So, by expanding the face-mask production capacity of the local industry quickly they were able to solve the problem of coordination that could have arisen without such an intervention.

Secondly, Yen (2020) observes that the Taiwan government fully leveraged the extant digital governance infrastructure and big data to implement COVID-19 pandemic preventive measures effectively and efficiently. Thus, as Yen further observes the Taiwan government able to manage to overcome the challenges of coordination and surge capacity, which were usually two key obstacles to effective and efficient crisis response. Yen would also note that the model of development that Taiwan operates, namely: the developmental state model, was instrumental in paving the way for these two elements.

Thirdly, Yen (2020) observes that the Taiwan government and Taiwan's vibrant civil society operate a strong two-way communication channel. This, therefore, aids in facilitating more synergy in combating the pandemic. For example, Yen mentions that there were several instances where civil society took the initiative to proffer solutions in dealing with the COVID-19 pandemic which the Taiwanese government then was obliged to adopt. This is because the COVID-19 pandemic has been fraught with a slippery slope of layers of uncertainty, making transparency and communication to be essential for society and people to clearly define and make sense of the entire situation. Yen generally makes the point that state-society collaboration in Taiwan's management of the COVID-19 pandemic facilitated the revision and refinement of the country's crisis response. This increased the citizens' voluntary compliance with the country's COVID-19 pandemic management programme which sometimes involves intrusive tracking and invasion of individual privacy, however, helped Taiwan to enhance the overall efficiency and effectiveness of its COVID-19 pandemic management. These were all made possible because of what Yen called 'a lively democratic regime' which provided the political backdrop for 'demand and supply of transparency, communication, and collaboration between state and society'.

### **Systems, Organizations, Collaborations, and Citizens Volunteering in the Taiwan Model**

In addition to the establishment of the Central Epidemic Command Centre, Huang (2020) observes that there are other systems, organizations as well as the phenomenon of

citizens volunteering which could all be validly considered as both government initiatives and operations of collaborative governance that have aided in engendering the success story of Taiwan's COVID-19 management, hence the Taiwan Model. There is for example the Taiwan National Health Insurance System, which covers almost everyone in Taiwan. The Taiwan National Health Insurance System is not only government-implemented social insurance but was originally set up to provide health security to all citizens through a mutual assistance system. As explained by Huang,

The system was designed to ensure that everyone enjoys equal rights to health care. The inclusion of different groups in the program means that all citizens have equal rights to access medical services when they get sick, are injured, or give birth. With the Integrated Circuit (IC) health care, every patient can check clinic records through the NHI's app. This system became a tool to help the government distribute masks through pharmacies to citizens all over Taiwan and helped trace citizens' travel records (p. 666).

Another significant factor in the Taiwan Model that was highlighted by Huang (2020) was that of public collaboration and voluntary assistance in Taiwan's COVID-19 pandemic management. Concerning this Huang reported that,

Masks, which were in high demand, were originally collected and distributed by the government through all of the existing manufacturers. Backed by government funds, the factories soon expanded their capacity and made up to 17 million masks per day. The government also sent soldiers to the factories to work to speed up production. Under the coordination of the Taiwan Pharmacy Association, all the masks were mailed to local pharmacies, which allocated certain hours to sell masks without fees to the general public. To help with social distancing, many popular gathering places such as "night markets" organized patrollers to control the flow of crowds. From the beginning, and depending on the sources of entry back to Taiwan or the likelihood of being infected, different levels of quarantine were mandated for different people. Thanks to flexible manpower and voluntary assistance, the implementation and effectiveness of these quarantines were ensured with low social cost (p. 668).

Huang (2020) further reports that people who were mandated to be in-home quarantine or isolation were not expected to leave their residence for 14 days. Such people were monitored by health workers twice a day both in terms of their health conditions and their physical whereabouts. In addition, they had their whereabouts reported by whistle-blowers including their janitors or building managers.

Similarly, Huang (2020) reported that several thousands of citizens volunteered to provide food to people who were in quarantine as well as to check on their physical conditions. These volunteers, according to Huang, were pivotal in helping to lower the likelihood of community spread of the COVID-19 pandemic in Taiwan.

### **Management of Frontline Nurses' Stress Levels**

Even though there was not a fully developed COVID-19 frontline nurses' stress reduction programme in existence, Yang et al. (2021) pioneered a COVID-19 frontline nurses' stress-reduction programme with the cooperation of the managers in order to determine the effect of an emergency nurse-led stress-reduction project on reducing stress levels of frontline nurses in Taiwan's COVID-19 pandemic management. The researchers adopted the methodology of action research utilizing online and person-to-person group brainstorming strategies. With this, they were able to evaluate COVID-19 frontline nurses' stress levels, causes of stress and needs during the early days of the COVID-19 pandemic (March 2020 - May 2020). Yang et al. were able to obtain a decrease in the levels of COVID-19 frontline nurses' work-related stress after implementing some improvement strategies.

Yang et al. (2021) found that COVID-19 frontline nurses' sources of stress emanated from several sources including personal protective equipment (PPE) and information about infection control and family's worry about being infected. However, their action research scheme successfully reduced the stress levels of the COVID-19 frontline nurses over 2 months. Yang et al, therefore, concluded that a stress-reduction project targeting COVID-19 frontline nurses' can reduce their stress during the COVID-19 pandemic and they suggested that building a good partnership between nurses and managers can be effective nursing management as part of the pandemic management and into the future.

### **COVID-19 Pandemic Management and Taiwanese Agri-Food e-Commerce**

Chang and Meyerhoefer (2020) investigated how the corona virus pandemic affected the demand for online food shopping services using data from the largest agri-food e-commerce platform in Taiwan. The rationale for their investigation is related to the success of the Taiwan Model considering that availability of online e-commerce platforms where the citizens could shop for food and have it either delivered to their homes contributes to the effective and efficient management of the COVID-19 pandemic. Also, online food shopping services generally serve public health goods as they help to reduce the risk of COVID-19 infection and protect the vulnerable members of the population with pre-existing conditions by reducing contact between shoppers in retail food outlets.

Chang and Meyerhoefer (2020) found that during the early waves of the COVID-19 pandemic in Taiwan as additional cases of COVID-19 are confirmed and announced in the media it reciprocally would increase sales of agri-foods on an e-commerce platform by 5.7% and the number of customers by 4.9%. Chang and Meyerhoefer's investigation showed that the demand for grains, fresh fruit and vegetables, and frozen foods increased the most during the period under study and this increase had a reciprocal benefit that accrued to small farms who were the ones that dominated the e-commerce platform over agribusinesses in general. The researchers also discovered that the variety of products sold on the e-commerce platform increased within the duration of their investigation during the early periods of the COVID-19 pandemic in Taiwan. This suggested that under a typical pandemic situation as presented by the COVID-19 crisis, as more consumers are drawn to similar online platforms, the concentration of sales on niche products would increase.

### **COVID-19 Health Waste Management in Taiwan**

Intending to contribute one more layer of excellence to the Taiwan Model of COVID-19 management, Chuand Chang (2021) took on the subject of COVID-19 health waste management in Taiwan. Consequently, Chu and Chang posit that medical institutions, centralized quarantine sites, home quarantine personnel, and others would be able to satisfactorily deal with the waste generated by the COVID-19 pandemic should they follow several stipulated procedures and strategies that constitute a sequence of management measures and operating principles. Those formulated management measures and operating principles according to Chu and Chang are encompassed in an adequate understanding of the following:

- (1) Introduction to health waste management;
- (2) Waste classification and cleaning methods in COVID-19 medical institutions;
- (3) Centralized quarantine station and home isolation waste cleaning method;
- (4) COVID-19 infection control and risk assessment measures in Taiwanese hospitals;
- (5) Feasible application of the smart system in health waste management (p. 55).

Chu and Chang (2020) after copious amounts of information on the foregoing conclusively maintained that the pandemic prevention and infectious disease control blueprint as well as the risk management response measures being implemented are based on the

‘Medical Institutions’ Response to COVID-19 Infection Control Measures’ announced by the Central Epidemic Command Centre in Taiwan. Chu and Changgo ahead to suggest the planning of risk-exposure operations for the purposes of the ability to mitigate and prevent disaster so as to ensure the safety and health of those who are working to ensure an efficient and effective COVID-19 waste disposal regime in Taiwan. Chu and Chang suggested the following for the pandemic prevention and infection control plan of Taiwanese medical institutions:

- Outpatient and emergency areas should have a mechanism for patient diversion to see a doctor.
- Infectious disease case notification system and handling.
- Principles of List of Contacts in Medical Institutions.
- Health monitoring and management of medical care workers
- Accompanying visit management.
- Personal Protective Equipment (PPE).
- Environmental cleaning and disinfection (p.76).

Chu and Chang (2020) also suggested that it is essential to introduce smart systems both for COVID-19 waste management and the overall systems of COVID-19 prevention stating that any continuing investments in these areas are worthy of development by all human beings. According to Chu and Chang,

The smart systems such as Visual recognition, RFID, GPS, Environmental conditions sensor, Weight sensor can be applied in various stages such as negative pressure ward/quarantine field application, temporary storage and classification processing, delivery application, sterilization/incineration application. This application is not yet popular, and this gives it more room for improvement (p. 78).

### **Looking Towards the Future: Whither the Taiwan Model – a New Taiwanese Model?**

Despite the famed success of the Taiwan Model with the outbreak of the Omicron variant of COVID-19 the Taiwan Model has alas faltered as the massive surge in transmission has overwhelmed the patterns of operation of the regular Taiwan model. The surge in Omicron transmission in Taiwan continued to increase in March 2022 and by the first week of May 2022, Taiwan had witnessed such a geometric progression in the numbers of COVID-19 cases that 30, 000 cases of infections were recorded in a day. Since then, the geometric progression in the number of infections has continued to get even more stupendous that the Taiwanese government has flipped its narrative from that of maintaining a zero-COVID policy to that of living with the virus and attempting to flatten the curve. Hence there are now talks by the Taiwanese government officials and representatives about ‘flattening the curve’ giving rise to what is now being referred to as ‘the new Taiwanese Model’ – “an acknowledgement that they can’t stop the spread of Omicron, but that they can try – to use an early pandemic-era phrase – to flatten the curve” (Davidson & Hui Lin, 2022).

Despite the recent downturn in the trajectory of Taiwan’s management of the COVID-19 pandemic which gave rise to the initial Taiwan Model before the current situation, Taiwan’s management of the COVID-19 pandemic, on an academic level, has hardly been studied systematically to properly characterise and chart it in terms of the constellation of management philosophies and theoretical concepts that properly apprehend the strategies and techniques applied in the model if indeed it is a model. There have only been vague suggestions and sporadic mentions about the Taiwan model of COVID-19 pandemic by commentators and writers (see, for example, Chang, 2020). Nevertheless, no proper academic study has been conducted to chart the Taiwan COVID-19 management model into the constellation of managerial ideas and philosophies that could be used to conceptually understand it.

Hence there is a strategic question for management scientists to answer and that is whether there are recognizable managerial philosophies and theoretical formulations that would aptly capture the operation of the Taiwan model of COVID-19 pandemic management? IF they exist, how these philosophies were practically employed during Taiwan's COVID-19 pandemic management? What the other countries in the global south could learn from the Taiwan experience in COVID-19 pandemic management? What prospects does the Taiwan model of COVID-19 pandemic management have towards being extrapolated to the global south without cultural or philosophical blockages given the cultural differences that may exist in the different milieus?

It is in the foregoing sense that there is an imperative to systematically investigate the managerial philosophies and strategies behind the initial successful management of the COVID-19 pandemic in Taiwan and to determine how they could be successfully transplanted to Africa as well as other parts of the global south in event of future pandemics. To do this, there is equally the need to conduct a cross-sectional sample social survey of those in the managerial spaces of drive Taiwan's COVID-19 response strategy, to determine the core managerial philosophies and considerations behind their management strategies for the containment of the COVID-19 pandemic in Taiwan and to distil the relevant lessons for countries in Africa and by extension the rest of the global south.

The target population for such a study should include different layers of the managerial cadre in Taiwan's COVID-19 pandemic response programme. Some of the relevant political leadership in Taiwan and some of the professional leadership in Taiwan were directly or indirectly involved in the COVID-19 management effort. Also, the media leadership and leadership of civil society that volunteered in the process of the successful management of the COVID-19 pandemic to make the programme more efficient and effective should all be captured in such a survey. The research should provide an excellent opportunity to empirically characterize managerial philosophies and theoretical formulations that would aptly capture the operation of the Taiwan model of COVID-19 pandemic management. Consequently, the outcome of such research would therefore be able to contribute to the existing body of knowledge on Taiwan's corporate and traditional managerial philosophies and Taiwan's model of pandemic management. This would provide fresh insights into Taiwanese contributions to the contemporary evolution of epidemiological and welfare responses to disruptive biomedical events.

### **The Role of Social Workers in Mitigating the Impact of COVID-19 Pandemic**

The COVID-19 pandemic has led to a dramatic loss of human life across the globe and presents an unprecedented challenge to Social Work. Though since its inception, social work has focused on person-in-the environment, the environmental has not been given due attention in most cases. The International Federation of Social Workers (IFSW) calls for social workers to put into cognizance the environments-in-the person to ensure that environmental issues gain increased presence in social work education.

Social work profession concerns itself with enhancing the overall well-being of the individuals, groups and communities, especially the vulnerable, the oppressed, the less privileged as well as the poor and contribute greatly to the care, support, promotion of rights, as well as empowerment of vulnerable populations (Bess & Collins, 2014).

The services social work professional provides to the individuals, groups and communities during emergencies such as the outbreak of COVID-19 pandemic are a unique one and cannot be overemphasized. Medical and green social workers work in collaboration with health professionals to alleviate the psycho-social and emotional trauma of those afflicted with COVID-19 pandemic. Social workers carry out these roles in three forms- pre-disaster, disaster, and post disaster which entail preparedness, response, and recovery from

the impact of the COVID-19 pandemic and other emergencies (Cooper & Briggs, 2014). Despite the huge number of confirmed infections and deaths attributed to the COVID-19 pandemic, there are millions of people around the world reported to have recovered from it, and there is no doubt that many of the survivors will require as well as find their way in palliative and/or non-curative care services. In this situation, social workers are to provide the best and most compassionate care that can possibly be provided which also includes adequate planning (Rosoff, 2008).

According to Amadasun (2020b) cited in (Okafor, 2021), the goal of social work profession is to advance social cohesion and stability, promote social change and development through empowerment and liberation of people as well as restoring social functioning while championing respect for the sanctity of life and drawing on the ideals of social justice and human dignity. This being the case, social workers have the responsibility of playing crucial and frontline role to ameliorate the impact of COVID-19 on individuals, groups, and communities. Responsibilities of social workers are not limited to the fight against the spread of COVID-19, ensuring inclusion of the most vulnerable in planning and response, organizing communities in ensuring the availability of essential items like food and clean water, advocating for social inclusion of the most vulnerable into the social service system, as well as facilitating physical distancing and social solidarity through campaigns and orientation programs (International Federation of Social Works (IFSW), 2020).

Social workers played the role of an educate during COVID-19 pandemic: there was a lot of falsehood and misleading information regarding the pandemic initially when it broke out which were more devastating and detrimental to the vulnerable population. In the light of the above, social workers cleared the misinformation by educating and orienting the public about the pandemic so as to keep the society posted about the true nature of the disease.

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