

## 4.

# The Most Effective Methods Used by Advanced Countries in the Fight against COVID – 19 and their Successes

**Mahmud, Adamu**

Library Services Department, IBBUL.  
adamumahmud109@gmail.com +2348032342243

**Mohammad Usman**

Nigeria Coordinator, International Talent Outreach.  
Muhdusman99@gmail.com +2348164510258

&

**Abubakar Yusuf Abdallah (Ph. D.)**

Lecturer, Federal University, Lokoja.  
abubakaryusuf990@gmail.com +2348036356574

---

### Abstract

*COVID-19 has been spreading and killing hundreds of thousands of people worldwide thereby necessitating measures are required that will drastically reduce the spread of the pandemic. The preliminary investigation of the researchers concretized the reality that Corona virus is yet to have a cure or endorsed vaccine from the World Health Organization (WHO) – a bird's eye view possibility in measuring the pandemic response success. The option left therefore, is to take precaution in curtailing the further spread through behavioral measures – namely; keeping a safe distance, avoiding social gatherings, washing hands, and reducing social contact and also, treating the noticed symptoms speedily. Although these measures are universal, advanced countries have evolved better approaches in prevention and control of the spread through the use of artificial intelligence (AI), big data, cloud computing, block chain and 5G, which have effectively improved the efficiency of the countries' efforts in epidemic monitoring, virus tracking, prevention, control and treatment, and resource allocation. This research therefore draws the methods used in those advanced countries in contrast to those of developing or developed countries in fighting against the pandemic while considering recorded successes that will serve as a guide for pandemic response and preparedness plans.*

**Keywords:** Most effective methods, Advanced Countries, COVID-19, Successes, Pandemic Preparedness Plan

### 1. Introduction

Similar to other contagious diseases [or pandemics] that spread over dispersed geographical locations, resulting to loss of many lives in millions, the present Corona virus-2019 (COVID-19) has already gulped 893,700 lives out of the 27,332,254 officially reported cases worldwide with just 19,410,481 people recovering as at 7 September 2020

(COVID-19: Coronavirus Cases; World Health Organization). Although World Health Organization's Research and Development Blueprint was launched in 2016 to decrease the time for development, assessment, and authorization of medical countermeasures for the world's most dangerous pathogens, past epidemics have revealed many scientific and technical issues that remain unresolved

(Simpson et al., 2020) added that, “uncertainty remains as to who will pay the costs, offset the risk, and accelerate research, clinical trials, and product development for medical countermeasures”. On the other hand, (Mohamed et al., 2020) posits that several countries have adopted aggressive health policies and geared their resources to the reality of this global health emergency, based on the experiences of countries that suffered the early attacks of this zoonotic fierce-full virus. Mohamed et al. therefore insisted that many slow developing countries and new emerging economy countries cannot take similar measures with the developed countries or the rich developing ones because it is irrational coupled with the unstable global economy, which is estimated to contract by 2.8% in 2020. (Fetzer et al., 2020) made an online poll comparison between low/middle-income and high-income economies and found out that individuals in high-income countries report a higher level of compliance with behavioral measures than those living in low/middle-income countries while Gómez, et al. emphasized that studying advanced countries is more important due to their urgent need to restart the economy and portrayed that since there is no vaccine available, governments will need to rely on people’s adherence to behavioral measures – namely; keeping a safe distance, avoiding social gatherings, washing hands, and reducing social contact in general”. This was also the finding of Usman and Adam, 2020.

## **2. Most Advanced Countries of the world**

Rankings are often reviewed to identify the most advanced countries in the world. The US News writes that, “The world’s most powerful countries also are the ones that consistently dominate news headlines, preoccupy policymakers and shape global economic patterns. Their foreign policies and military budgets are tracked rigorously. When they make a pledge, at least some [countries] in the international community trust they will keep

it”. Based on this, US news in partnership with BAV group ranked in order of superiority; US, Russia, China, Germany, United Kingdom, France, Japan, Israel, South Korea and Saudi Arabia as the top ten.

Getzoff, Marc’s report itemized sixty seven most advanced countries such that Norway, Sweden, Netherlands, Denmark, United States, Singapore, Finland, United Arab Emirates, South Korea, Hong Kong, Switzerland, United Kingdom, Belgium, Canada, Australia, Luxembourg, Taiwan, Spain and sixty-seven other countries were ranked as the most technologically advanced countries of the world in order of composite scores from 3.682965 for Norway being the top of the list to 1.567116 for Pakistan, being the last and 67th in the list.

Wikipedia however, gave a multidimensional approach to the ranking of most advanced countries from different points of view such as income per capita; countries with highest GDP. Industrialization; countries in which the tertiary and quaternary sectors of the industry shows more preponderance and more recently, another ranking emerged; human development index [HDI], which combines an economic measure, national income, with other measures, indices for life expectancy and education has become prominent. Although HDI does not consider net wealth per capita and quality of goods of a country thereby reducing the ranking of G7 members.

## **3. The Most Effective Methods and Successes in the Fight Against COVID-19**

United Nations Development Program posits that, “in the absence of a vaccine or therapeutics, most of the measures to slow the spread of COVID-19 have been non-pharmaceutical interventions which reduces contagion and reduces vulnerability”. In that regard, the World Economic Forum COVID Action Platform allures that in the battle against the outbreak, China actively leveraged digital technologies such as artificial

intelligence (AI), big data, cloud computing, block chain and 5G, which have effectively improved the efficiency of the country's efforts in epidemic monitoring, virus tracking, prevention, control and treatment, and resource allocation. Also, companies made their algorithms publicly available, researchers shared data and firms increased access to key video casting tools for educators and remote workers.

The World Economic Forum COVID Action Platform therefore highlighted the achievements recorded through strategy devised by China and other advanced countries such as New Zealand, US, Vietnam, etc. learnt from China and made her their benchmark in speed and successes (WHO, par. 5; Mohamed et al. 213; World Asia – Pacific; Condo et al. 2020).

Tremendous successes were recorded in so far advanced countries surprised the world with new strategies to fight the virus. During the outbreak, a range of companies in the most advanced countries, especially China, made their algorithms publicly available to improve efficiency and to support coronavirus testing and research. This reduced time for testing RNA secondary structure from 55 Minutes to

just 27 Seconds. Furthermore, genetic analysis for suspected cases was shortened from several hours to just 30 minutes. AI was also used in places with concentration of people to test temperature surreptitiously and cases can be easily located with AI and attended immediately (The World Economic Forum COVID Action Platform, 2020).

Secondly; big data migration map was deployed on mobile devices and PCs for understanding and predicting the epidemic situation nationwide. In the same vein, cloud computing was deployed to research and health institutions to accelerate the vaccine, communication, and treatment. 5G + smart application which was capable of providing 24\*7 real time treatment and telemedicine that got 490 Million online paved ways for quick response and subdued the tendencies of propagating the virus. These effective methods and successes in contrast to the conventional methods reported by Fetzer, et al (2020).and Usman and Adam as a normal practice in every country were not recorded in less advanced countries.

### References:

- [1] Gómez, M., Ivchenko, A., Reutskaja, E., & Soto-Mota, P. (2020). Behaviours, perceptions and mental wellbeing in high income and low/middle-income countries at the beginning of COVID-19 pandemic. (S. Djankov, & U. Panizza, Eds.) *International Development Policy Journal*, 128-140. Retrieved September 07, 2020, from Web: [www.cepr.org](http://www.cepr.org)
- [2] Simpson, S., Kaufmann, M. C., Glozman, V., & Chakrabarti, A. (2020). Disease X: accelerating the development of medical countermeasures for the next pandemic. *Lancet Infect*, 1. doi:[https://doi.org/10.1016/S1473-3099\(20\)30123-7](https://doi.org/10.1016/S1473-3099(20)30123-7)
- [3] Buheji, Mohamed; Cunha, Katian da Costa; Beka, Godfred; Souza, Yuri LeandrCarmo; de Souza, Yuri Leandro do Carmo; Da Costa Silva, Simone Souza. (2020, September 07). The Extent of COVID-19 Pandemic Socio-Economic Impact on Global Poverty. A Global Integrative Multidisciplinary Review. *American Journal of Economics*, 10(4), 213-224. doi:DOI: 10.5923/j.economics.20201004.02
- [4] Condo, J., Uwizihwe, J. P., & Nsanzimana, S. (2020, April 5). Learn from Rwanda's success in tackling COVID-19. doi:doi: 10.1038/d41586-020-01563-7.
- [5] COVID-19 CORONAVIRUS PANDEMIC. (2020, September 07). Retrieved September 07, 2020, from worldometer: <https://www.worldometers.info/coronavirus/>
- [6] Fetzer, T., Witte, M., & Hensel, L. (2020, March 5). Global Behaviors and Perceptions in the COVID-19 Pandemic. Retrieved September 07, 2020, from <https://covid19-survey.org/index.html>

- [7] Getzoff, M. (2020, January 17). Global Finance Magazine. Retrieved September 08, 2020, from Most Technologically Advanced Countries In The World 2020: <https://www.gfmag.com/global-data/non-economic-data/best-tech-countries>
- [8] The World Economic Forum COVID Action Platform. (2020, April 08). How next-generation information technologies tackled COVID-19 in China. Retrieved September 08, 2020, from The World Economic Forum COVID Action Platform: <https://www.weforum.org/agenda/2020/04/how-next-generation-information-technologies-tackled-covid-19-in-china/>
- [9] United Nations Development Programme.(n.d.).2020 HUMAN DEVELOPMENT PERSPECTIVES. Retrieved September 07, 2020
- [10] US News. (2020). Power: These countries project their influence on the world stage. Retrieved September 09, 2020, from US News: <https://www.usnews.com/news/best-countries/power-rankings>
- [11] Usman, M., & Adam, M. (2020, August 10). Strategies in Providing Library and Information Services as a Precaution to Checking the Spread of COVID-19 Pandemic. *Lapai Journal of Humanities*, 11(4), 112-129.
- [12] Wikipedia. (2020, September 05). Developed country. (I. Wikimedia Foundation, Ed.) Retrieved September 2020, 2020, from Wikipedia: [https://en.wikipedia.org/wiki/Developed\\_country](https://en.wikipedia.org/wiki/Developed_country)
- [13] World Asia - Pacific. (2020, June 05). Vietnam: A success story in fight against COVID-19. (S. Alam, Ed.) Retrieved September 08, 2020, from World Asia - Pacific: <https://www.aa.com.tr/en/asia-pacific/vietnam-a-success-story-in-fight-against-covid-19/1866670>
- [14] World Health Organization. (2020, September 08). Coronavirus disease (COVID-19) pandemic. Retrieved September 08, 2020, from WHO: [https://www.who.int/emergencies/diseases/novel-coronavirus-2019?gclid=CjwKCAjw19z6BRAYEiwAmo64Lbgyd8Lsg6jfxY\\_zAOlv-dOTupjwPoSpEuKtnAMsXM2TmopcICGgGxoCfb4QAvD\\_BwE](https://www.who.int/emergencies/diseases/novel-coronavirus-2019?gclid=CjwKCAjw19z6BRAYEiwAmo64Lbgyd8Lsg6jfxY_zAOlv-dOTupjwPoSpEuKtnAMsXM2TmopcICGgGxoCfb4QAvD_BwE)
- [15] World Health Organization. (2020, July 15). New Zealand takes early and hard action to tackle COVID-19. Retrieved September 8, 2020, from WHO: <https://www.who.int/westernpacific/news/feature-stories/detail/new-zealand-takes-early-and-hard-action-to-tackle-covid-19>