Corporate Social Responsibilities: Business Responses to the COVID-19 Pandemic

A Sustainability Action Through Information Technology

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ABSTRACT

The COVID-19 pandemic has had a huge impact on economics and contributed to an unprecedented reduction in business sustainability around the world. The COVID-19 countermeasures prevented people from crossing the city and forced them to work from home, resulting in the daily income disappearance. Currently, the government is still struggling to overcome the pandemic together with all stakeholders including the businesses. Business entities actually can contribute using technology to adapt quickly through Corporate Social Responsibility (CSR). This literature review explained how CSR can also be part of the problem solver using the information technology (IT) approach. This study found that IT actually can assist people to trace COVID-19 positive patient, pandemic area, the risk level of the pandemic area, self-isolation, hospitalization, drugs availability, and vaccinated schedule for the community. In conclusion, this study addressed potential implications for CSR from business entities to reshape the new situation which is posted by the COVID-19 environment.

*Keywords: COVID-19 pandemic, CSR, IT, Sustainability*

1. INTRODUCTION

The world was shaken for the first time after an unexpected outbreak was discovered. The first outbreak occurred in Wuhan City, Hubei Province, China in December 2019. The epidemic has devastated not only the health issues but also economy which has been going on for a year and is designated a global pandemic by the World Health Organization (WHO). This outbreak is spread throughout the world and millions of victims have been passed away although many have recovered from the virus.

In this harsh scenario, we have witnessed temporary layoffs due to CEOs' decisions who either want their companies to bear the least economic difficulties or they seek to plan for a gloomy medium-term future. Taking into account such severe conditions, the government has implemented policies as a form of rapid response to the pandemic. A number of provinces, regencies and cities have implemented a lockdown. Countries that have strong funding will resolve the problem immediately but there are other countries that are slow in resolving the pandemic which we never know when it is the ending. In this context, the role of private sector is tremendous in term of carrying out the Corporate Social Responsibility (CSR). In several reports, we are informed that one of the companies' obligations is to make a beneficial contribution to the environment for what has been exploited in its environment.

Data shows that CSR is a contributor in sustainability development can be seen in Figure 1 as reported in the KPMG CSR Report 2020 [1], the percentage of which is increasing in the world. Thus, this shows that many companies have allocated CSR (around 80% to 98% largest companies report CSR in

Annual Report) and implemented it for sustainability development.
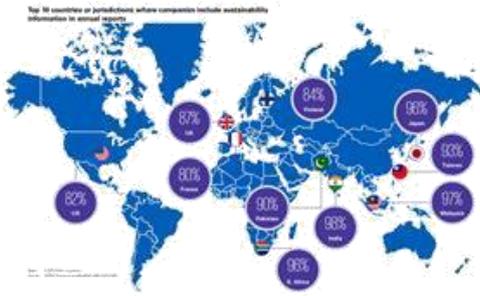
Figure 1 Top 10 countries where companies include sustainability information in annual report

The CSR approach has more than 50-year history and it became a global concern and became reality in the companies' life [2]. Many companies put has the obligation from business to the environment. CSR is actually the practice of integrating social and environmental goals into business operations. Common roles of CSR include helping control costs, improve a company's brand, attract top-quality talent and facilitate long-term financial success [3]. It means that business also has mandatory what they do, provide, give to environment because there are some impacts from company operations that come to community surrounding. At least five functions of CSR for company to environment base on The United Nations Industrial Development Organization notes include (1) responsible sourcing to material and supplies, (2) employee, vendor, customer and community engagement, (3) adherence to labor standards, (4) environment protection management and (5) anti-corruption measures.

In terms of all functions of CSR actually linked to the sustainability development concept—how actually business operations also have awareness to the environment or we can say, we keep environment sustainable in the future. One of the topics that will be discussed is how CSR from large companies responds to the COVID-19 pandemic through various information technology-based innovations.

Then how exactly is the role of technology in the implementation of CSR and how technology can help companies in responding to the pandemic conditions. In the next explanation, the experiences of several large companies in several countries in the implementation of information technology-based CSR when responding to the pandemic that occurred.

Since the outbreak of the COVID-19 pandemic, the applicable protocol is starting from conducting rapid tests to all people who are in direct contact with positive sufferers, to maintaining social distance, wearing masks and washing hands before and after activities. Following the WHO Protocol, a number of countries are taking steps to resolve the COVID-19 pandemic, while to provide quickly in its implementation they use an Information Technology approach, at least which consists of three phases, namely:

1. Trace phase of COVID-19 positive patients

2. Trace phase of hospitalization, self-isolation and consultation (telemedicine, hospital checks and pharmacies for drugs and patient oxygen needs)

3. Trace phase of vaccination injected

These three phases require substantial funding where CSR from large companies help through the use of information technology to accelerate this process. Governments are the first responders to the COVID-19 crisis and play an essential role in assuring rights protection via local public service provision, including to the most vulnerable populations living in informal settlements or slums within and around cities as well as older citizen, women, children, persons with disabilities, migrants and refugees.

Technology has proved a useful and necessary tool to ensure that local and regional governments on the frontline of the emergency continue to provide essential public services during the COVID-19 crisis. As the coronavirus continues to spread around the world, governments have put in place important restrictions on the movement of people, the functioning of services, and rules on physical distancing. Within this context, technology can have a profound effect on citizen's daily lives and ensure them access to health services, access to information, and communication with competent authorities, among other things.

Local and regional governments on the frontline of the COVID-19 crisis have resorted to digital technologies to monitor, anticipate and influence the spread of the disease, as well as to provide education for students who cannot access school as well as foster social cohesion while we respect physical distancing. At the same time, local and regional governments need to ensure that, when using digital technologies, human rights are protected.

This paper was designed to analyze CSR from large companies in several country regarding their technology handling during the COVID-19 pandemic, the factor that made it sustainable and perpetual even after the COVID-19 pandemic, and the recommendation for some country about the handling innovation and changes with in technology adoption in order to be competitive and viable.

2. MATERIALS AND METHODS

This study investigated the CSR responses to the COVID-19 pandemic in terms of Information Technology by reviewing secondary data. The authors collect data via the internet including scientific journals, corporation report and articles. Internet utility to access secondary research is maximized due to physical movement control during this COVID-19 pandemic. Cost-effectiveness is also one of the reasons for selecting the secondary research as the authors are given six days to complete this article. The secondary data serves as the basis for further investigation. However, the authors have no information advantage for the data obtained as they do not exclusively belong to the authors.

3. RESULTS AND DISCUSSION

Many large companies in the world, now is the right time to define what CSR is for the COVID-19 pandemic, because the government needs collaboration in overcoming all of this. It certainly will be a big moment for big companies how much CSR attention will be used to overcome all of this, build a slumped economy from small businesses and individuals. Overcome the difficulties of COVID-19 positives, help developing countries in vaccination centers because there are not that many funds. Huge efforts from large companies will certainly be very valuable for the revival of business in the future. Several companies also said that adapting to activities in the allotment of CSR needs to be considered that corporate governance must be maintained to ensure reputation in the future.

The COVID-19 pandemic is a humanitarian disaster on a global scale. Communities have been grappling with the effects of the virus on individuals and communities as well as that finally brought some economics fall-out and financial consequences. This condition has been a challenging; we need not only government to do that, but also large company to scale up this economic condition become well.

The governments of different countries have been working hard to ensure the health and safety of their people. In the early stages, various approaches taken by governments around the world were basically hoping that this pandemic would end soon. Starting from how to find the right vaccine to provide immunity so that it will achieve herd immunity. Various theories have been developed by scientists so that vaccines are found which are believed to provide immunity for the community. Together with government health companies to develop vaccines that are believed to be able to provide immunity for the community.

Then the next step is how to overcome this pandemic so it doesn't spread. In several articles, many steps have been taken to prevent the spread of this virus by going through several steps. One of the efforts or approaches taken by the government is as follows:

1. Trace phase of COVID-19 positive patients

By doing contact tracing is key to slowing the spread of COVID-19 and helping protect people, family, and community. So that when it is known how many people have tested positive for COVID-19, a risk zone will be obtained which must be anticipated by the government as well as we know how many people have to be taken to hospital, self-isolate and so on. This information is very useful for the government and large companies that will assist the government in providing food needs for patients who are in isolation or people who need food and other needs, because they are in isolation and cannot meet other people. Companies can assist the government in this effort through an application that was created by the government so that it has a map of the distribution of COVID-19 positive people who need food through their CSR so that they can be targeted and well-coordinated in one service through a GIS-based application

2. Trace phase of hospitalization, isolation and consultation (telemedicine, hospital checks and pharmacies for drugs and patient oxygen needs)

At this phase a number of positive COVID-19 can already be known accurately considering the data presented in the application that can be downloaded by everyone. However, in practice in the field to get a hospital is not so easy if the condition of patient cases is increasing day by day. Therefore, information on the availability of beds in the hospital is needed. In addition, in some cases there has been a positive spike in COVID-19 entering the ICU, requiring Oxygen (O_2), this is also a big problem, as has happened in several countries such as India, Indonesia and several countries. Through the application we will obtain data on how many patients are being treated at the hospital. Meanwhile, for COVID-19 positives who are isolating in designated places or at home according to the policy on the availability of isolation places, treatment is needed that requires speed and seriousness. The provision of food and basic needs of the community, the need for doctors remotely or telemedicine to the provision of drugs that can be purchased online at the pharmacy closest to the area of residence. If this is done in collaboration with large companies, of course, it will greatly accelerate herd immunity in a region or country. Companies can help through their CSR in order to provide a speedy recovery, even though we know that this is the government's duty.

3. Trace phase of vaccination injected

At this phase is carried out by the government in an effort to quickly create herd immunity in a country. In some countries, the vaccination process has been carried out so quickly; while in other countries it has not been as fast as developed countries because of limited funding to buy vaccines, which are not small in

number. Through the presentation of application data that can describe a number of countries whose citizens have not been touched by vaccination, multinational companies should be able to collect global CSR to help countries that still have difficulties in funding this vaccine. Application of technology can be considered one of the pioneering behaviours to assist. Several companies from countries such as UK, Germany, India, Indonesia and Malaysia have done this and will be illustrated in the next section.

3.1. United Kingdom

United Kingdoms had found their best ways to simplify COVID-19 records by an application called "National Health Service" (NHS). This application started to be in use since early July. In the week of July 7-15, more than half a million people were put into a 10-day enforced quarantine with the app's recommendations. It sends a notification to the remind user if he or she has been two metres away from a person who has declared a COVID-19 positive. The app can also communicate with other phones as it uses Bluetooth technology that can pass through walls. This app aim to reduce the spreading of virus and also prevent the emergence of a new variants of virus [4].

Meanwhile, private sector like Mercy Corps and Shell have partnered for six years to drive forward high impact programs during times of crisis and to enhance livelihoods in nine countries, including Iraq, Myanmar and Somalia. Mercy Corps is one of Shell's global emergency response partners (shown at Table 1).

Today, 18 of the world's 20 major vaccine producers are already running their production on SAP solutions that cover the end-to-end process from manufacturing to controlled distribution to administration and post-vaccine monitoring. One of those producers is German vaccine manufacturer CureVac, whose COVID-19 vaccine is currently in the testing phase. "We need SAP to manufacture and distribute our vaccine on a global scale," says Pierre Kemula, CFO at CureVac.

3.2. Germany

While some countries have had apps to record contacts between people and make infection chains traceable, the new German coronavirus alert app beats others in terms of data privacy. The German warning app does not detect user locations. The app does not find out where anyone is, which means no authorities can spy on the users. The app recognizes only which other app users are currently in the vicinity. This works via Bluetooth, a wireless standard that enables devices to exchange data at close range. Phones will send each other short-term identification numbers. The actual contact data is only stored locally on the users' respective smart phones and it is encrypted in such a way that even the phone owners cannot view it. The

data is automatically deleted after two weeks [5; 6]. The corps and Governor app can be seen in Table 2.

3.3. India

Over the years, BFSI companies have been seen participating in CSR activities that do not garner visibility (as shown in Table 3). Hence in order to highlight the importance, contribution and existence of the BFSI segment and to boost its morale, these are various companies in India that contribute helping during covid-19.

Alongside with BFSI companies, India makes move to take down COVID-19 with traceable app called *Arogya Setu* which develops a connection between the healthcare services and the people of India. The healthcare system is useful for proper monitoring of COVID-19 patients by employing an interconnected network. This technology helps to increase patient satisfaction and reduce readmission rate in the hospital.

AarogyaSetu uses contact tracing to record details of people who may have come in contact with someone during daily normal activities. If any of them, at a later point in time, tested positive for COVID-19, they should immediately be informed and proactive medical intervention will be arranged.

If someone make a first or a second degree contact with a COVID-19 positive person, *AarogyaSetu* will alerts them and gets them immediate medical help. The self-assessment test also helps in identifying infection possibilities.

The app helps the Government of India to identify and curb the spread of the infection. The more the number of people use it, the more effective the app will be in chaining the pandemic.

3.4. Indonesia

#TeamJAKI, which is part of the Jakarta Smart City, contains professional experts who want to create sustainable public service system improvements. Same as Jakarta Smart City, #TeamJAKI is also creating an efficient and effective smart city to transform Jakarta into a metropolitan city which is not only smarter but also better. The spirit of bringing services at hand, JAKI is designed to be device-friendly so that it can be accessed by anyone, anywhere, and anytime. Integration is the main value in JAKI to optimize the efficiency and effectiveness of public services. Integrated services through JAKI allow citizen to access various services in Jakarta. Along with Jaki Application, there are many sources to help the citizen during COVID-19 and shown at Table 4.

3.5. Malaysia

While the government of Malaysia has developed the application named *MySejahtera* to ensure effective counter measures, Malaysia received four

technology solutions from Huawei Malaysia in combating the COVID-19 pandemic [7;8] as shown at Table 5. These technologies enable Malaysia government to press forward in dealing with COVID-19 pandemic. The corporation not only takes prevention to protect its employees, but also serves the community for a better environment issue is the priority. A variety of mechanisms especially Information Technology development protects the employees and the communities by collaborating with the government. While COVID-19 pandemic is evolving into global impact, it is the optimum period to transform into a better world than it has ever been. With this historical incident, the wellbeing of the stakeholders will be considered besides the financial performance.

4. CONCLUSION

This study offered the opinions on how the COVID-19 pandemic influences CSR through Information Technology. Corporations are given opportunities to engage actively in CSR during this pandemic. The crisis could potentially reshape the CSR development from various dimensions. Corporations' management decision has grown increasingly prominent which is expected to lead a shift toward more responsible organisation development. As our lives change, corporations adjust their policies and strategic planning to fit into the new beliefs and views.

The safety of people's lives and health crisis could potentially reshape the CSR development from various dimensions. Corporations' management decision has grown increasingly prominent which is expected to lead a shift toward more responsible organisation development. As our lives change, corporations adjust their policies and strategic planning to fit into the new beliefs and views. The safety of people's lives and health.

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Table 1. United Kingdom corps

Technology Solution	Functions
The NHS website (nhs.uk) and NHS APIs syndication	- Improving health and care outcomes - Improving people's experience of health and care services - Reducing pressure on frontline services - Making health and care services more efficient - Providing guidance about how to respond to major health events. This includes what people can do to protect and promote the health and wellbeing of themselves and their families. For example, advice on how to protect everyone's health and use the NHS in a pandemic - Bluetooth technology
Mercy Corps personal protective equipment to medical teams	Protective clothing, helmets, goggles, or other garments or equipment designed to protect the wearer's body from injury or infection.
Mercy Corps health care	For civilians in need during covid-19 crisis

Table 2. Germany corps and governor app

Technology Solution	Function
German coronavirus alert app	- Protect users' privacy - Trace or mark the person who get the virus and will be spread by warning app - Nobody can trigger a false alarm - Privacy - Push message automatically - Recognizes only other app users who are currently in the vicinity - Bluetooth technology, enables devices to exchange data at close range. - The phones send each other short-term identification numbers
SAP Ariba Discovery	- Open access to so any buyer can post their immediate sourcing needs and any supplier can respond to show they can deliver. [12]
SAP Remote Work Pulse	- This offering from Qualtrics helps organizations assess preparedness for a remote workforce, as well as whether employees have what they need to succeed in this new pandemic.

Table 3. Various companies in the BFSI sector in India

Technology Solution	Function
Arogya setu Self-assessment tools for users	-Those who are identified as Bluetooth contacts of COVID-19 positive cases or are classified as needing assistance based on their self-assessment, will be contacted by National Health Authority. -If someone make a first or a second degree contact with a COVID-19 positive person, *AarogyaSetu* will alerts them and gets them immediate medical help. The self-assessment test also helps in identifying infection possibilities. -Users sample is collected at the lab. Collected sample is analysed. The lab uploads the test results to ICMR Portal. This is mandatory for *AarogyaSetu* to know if you have tested positive. If it is the case, ICMR shares your details with *AarogyaSetu*. *AarogyaSetu* changes your status to COVID-19 positive (RED) and initiate contact tracing -Mapping of likely hotspots and dissemination of relevant information about COVID19
Aadhar Housing Finance Ltd	-Donated 28,810 three-ply masks, 10,239 hand sanitisers, 112 hand gloves, 3 carbide nozzles to frontline staff in hospitals and police stations -Provided 1,200 kg rice, 2,140 ration kits and 167,000 meals to migrant labourers and

Technology	Function
	families -Contributed Rs 50 lakh to PM CARES -Donated Rs 350,000 to the Bandra Holy Family Hospital for the treatment of COVID-19 patients
JM Financial Home Loans Ltd	-Contributed Rs 15 crore to PM CARES -Contributed Rs 15 crore to support healthcare assistance to counter the pandemic
IIFL Securities Ltd	-Contributed Rs 5 crore to PM CARES -Donated Rs 20 lakh to hospitals and non-profits to provide protective gears to frontline staff and food to migrant labourers

Table 4. Indonesia's application

Technology Solution	Function
Jaki Application Data monitoring	- Updating the newest news of COVID-19 infectious people, confirmed cases that have been officially announced by the Indonesian Ministry of Health - Updating positive cases, cured cases, and death cases
Jaki application Zonasi	- Corona detection in nearby - Isolation monitoring
Jaki Application Monitoring isolation	- Shortcut to application for health workers and patients in self-isolation in controlled isolation facilities owned by the Jakarta provincial government. This application facilitates monitoring and communication between isolated patients and health workers
Jaki Application JakSiaga	- Consultation, similar with chatbot
Warga bantu warga website	- Checking hospital capacity , Oxygen information for those in need, pharmacies for drugs.

Table 5. Huawei technology solution

Technology Solution	Function
Huawei Telemedicine Video Conference	To provide secure real-time video conference quarantine between the quarantine hospitals and the Ministry of Health
Hospital Wireless Network Communication Solution	To provide wireless network coverage with no-waiting-time communication
AL Cloud Auto Detection Solution	To enable early diagnosis of the infected patients to receive early quarantine and treatment
Huawei Nova 7i (200 units)	To enhance the hospital crews in communicating and collaborating