

Formulating Indonesia's Covid-19 Policy based on South Korea's Experience

Astri Rafikasari

Defense Diplomacy Department, Indonesian Defense University & Indonesian National Institute of Aeronautics & Space (LAPAN), Indonesia

Abstract— This paper aims to analyze the formulation of Indonesian policy in overcoming Covid-19. The policy formulation is based on the experience of South Korea that has successfully overcome Covid-19 in its country. By using descriptive research methods, using data sources from books, journals, and writings related to Covid-19. The massive distribution of Covid-19 in Indonesia has encouraged the government to formulate appropriate and accurate policies to address Covid-19 in Indonesia. In formulating the policy, it can be based on the experience of other countries that have been successfully applied. South Korea as one of the countries that have successfully overcome the spread of Covid-19 by utilizing technology should be used as an example of learning. South Korea utilizes state technology (smart city infrastructure) in tracking Covid-19 patients. Through this tracking process, the spread of Covid-19 can be reduced. For Indonesia, the South Korean experience regarding the use of various technologies to detect Covid-19 patients and their distribution is now important for Indonesia. Tracking via credit/debit card transactions, tracking cellphone history (calls, text message, Whatsapp, etc.), cellphone GPS tracking, tracking through social media (Instagram, Twitter, Facebook, etc.), as well as tracking on start-up applications such as Gojek and Grab will make it easier for the government to be able to detect and suppress the distribution of Covid-19. The development of Covid-19 applications will also be more comprehensive in dealing with Covid-19 in Indonesia.

Keywords— Formulating, Policy, Covid-19, South Korea's Experience, Technology.

I. INTRODUCTION

The Dynamics of Covid-19 Outbreak in Indonesia

The current Covid-19 outbreak is not only in China but has also spread not only to autonomous regions such as Hong Kong and Macau but also to several countries, including Japan, South Korea, the United States (US), Italy to other countries. Southeast Asian countries such as Singapore and Thailand, and Indonesia. The widespread of the Covid-19 pandemic is also felt by Indonesia beginning with the existence of the first two Indonesian citizens who have been examined and tested positive for being infected by Covid-19 on March 1, 2020. These two people are 61 years old and 34 years old who are mother and child and immediately undergo treatment in the RSPI isolation room Dr. Sulianti Saroso, Jakarta (Citradi, 2020). The Minister of Health, Terawan Agus Putranto, stated that the two residents were exposed to Covid-19 who came from a Japanese citizen who lived in Malaysia and had traveled to Indonesia. Seeing the condition of the entry of Covid-19 into Indonesia, the Government of Indonesia immediately

conducted a travel search and looked for other citizens who had direct contact with the Indonesian citizens and Japanese citizens to be detected and could also be checked to find out whether they might also be infected by Covid-19. These findings indicate that there are two other Indonesian citizens who are also positive with Covid-19 whose transmission is still ongoing until now, even growing very rapidly (Nuraini, 2020).

The development of Indonesia's Covid-19 outbreak has experienced very rapid development in the last 2 months. The number of victims infected with Covid-19 and victims who died experienced a very drastic increase which certainly triggered the government to act more so that the death rate due to Covid-19 does not become higher. The distribution of Covid-19 must be followed by various policies to limit the distribution of Covid-19 in Indonesia. The Indonesian government through the Ministry of Foreign Affairs forbids foreign travel, especially to countries that have contracted Covid-19, such as China, Korea, Japan, Italy, etc. If there are Indonesian citizens

who will return to Indonesia, they must isolate themselves for 14 days after their arrival in Indonesia.

In addition, social distancing policies which are now physical distancing, work from home policies, worship at home, study at home, and all Indonesian citizens are required to wear masks, and the public is advised not to go home or to travel outside the city firstly also applied by the government to prevent the spread of Covid-19 from becoming more prevalent in Indonesia. The policies that have been carried out by the Indonesian government are basically carried out to prevent the spread of Covid-19 from becoming more widespread and to cure citizens who are already positive of Covid-19. However, the policy must also be supported by the community, which must focus more on raising awareness and discipline, as well as community participation to live healthy lives and obey the policies made by the government. The public must trust that the government has made its best efforts in detecting and preventing Covid-19 from expanding in Indonesia. The right government policy without the support of the people certainly will not run optimally and the results will not support the realization of national interests.

Policies that have been carried out by the government must also be followed by awareness from the public, to be honest, and follow all procedures if they are tested positive for Covid-19, people in monitoring (ODP), and patients under surveillance (PDP). ODP Covid-19 is if there are people who experience symptoms of fever ($> 38^{\circ}\text{C}$) or have a history of fever or ARI without pneumonia and have a history of travel to the affected country in the last 14 days before symptoms occur. Whereas PDP Covid-19 is a person who has symptoms of fever ($> 38^{\circ}\text{C}$) / history of fever, ARI and mild to severe pneumonia and has a history of travel to an infected country or contact with a person who is confirmed positive for Covid-19 in the last 14 days (Jakarta, 2020). Classification of the community as a means of government oversight to ensure the conditions and handling of each of these classifications. So that their existence and condition can be monitored continuously.

However, in Indonesia with the limitations of technology in monitoring patients both positive Covid-19, ODP, and PDP, supervision mechanisms have not been carried out optimally, so there are many cases of people who have been positive Covid-19, ODP, and PDP apparently still active as usual outside the neighborhood. This certainly triggers Covid-19's wider distribution in Indonesia if monitoring and tracking of their whereabouts cannot be carried out. In addition, the detection of

potentially positive people in Covid-19, ODP, and PDP is also still difficult for Indonesia to do with technological limitations.

In contrast to what has been done by the South Korean government which has location detection and detection technology for people who have had physical contact with positive patients Covid-19. In dealing with the distribution of Covid-19, South Korea is considered to have succeeded in countering the distribution of Covid-19 by utilizing various state-of-the-art technology. In this case, the experience of the South Korean state in handling Covid-19 is exemplary by Indonesia, so that the effort to trace the contacts of people who have had physical contact/physical contact with positive patients with Covid-19 can be easier. So that it will support the government in resisting the spread of Covid-19 in Indonesia.

II. CONCEPTUAL FRAMEWORK

Covid-19

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus (WHO, 2020). Coronavirus is a family of viruses found in humans and animals. Some of the viruses can correct humans and cause various diseases, ranging from general illnesses such as flu, to more fatal diseases, such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS) (Cigna, 2020). Until now there is no known cause of the Coronavirus, but it is known that this virus is spread by animals and is capable of transmitting from one species to another, including humans. It is known that the Coronavirus originated from Wuhan City in China and appeared in December 2019. The Covid-19 outbreak since Wednesday 11 March 2020 has been established by the World Health Organization (WHO) as a pandemic. The term pandemic refers to a disease that spreads to many people in several countries at the same time. The number of coronavirus spreads has increased significantly and is continuing globally (Widyaningrum, 2020). This explains the alarming spread and severity of the Covid-19 outbreak. By declaring Covid-19 as a pandemic it means that WHO is giving alarms to the governments of all countries of the world to increase their preparedness to prevent and deal with the spread of Covid-19 in their respective countries. It is hoped that the governments of these countries will immediately formulate political policies both in their own countries and abroad.

Public Policy

Public policy is "is whatever the government chooses to do or not to do" (Dye, 1978). This definition

emphasizes that public policy is about the realization of "action" and is not merely a statement of the wishes of the government or public officials. Besides the government's choice not to do something is also a public policy because it has an influence (the same effect as the government's choice to do something. Public policy is also defined as "the authoritative allocation of values for the whole society" (Easton, 1955), which explains that only the owner of authority in the political system (the government) can legally do something to the community and the government's choice to do something or not do something is manifested in the form of allocating values.

Based on the opinions of the various experts, it can be concluded that public policy is a series of actions taken or not carried out by a government that is oriented towards specific objectives to solve public problems or in the public interest. The policy to do something is usually stated in the provisions of regulations made by the government so that it has a binding and coercive nature. Public policy in the practice of state administration and governance is basically divided into three principles, namely: first, in the context of how to formulate public policy (policy formulation); second, how the public policy is implemented and third, how the public policy is evaluated (Nugroho, 2004).

Public policy related to decision making process, defined as a collection of decisions made by recognized domestic political units, in which state leaders (both individuals and groups) act as the main actors in the decision-making process (Jensen, 1982, p. 7). A country's foreign policy is formulated and implemented by its policymakers. By doing that, they consider a country's national interests, internal and external environment, national values, foreign policy goals, and decisions of other countries and the nature of this international power structure is a factor/element of Foreign Policy (Hidayat, 2020).

In this paper the conception of public policy and decision-making process is used to explain that in formulating a country's government policy it can be based on a national and international strategic environment. one of the strategic strategic environments is through the policies of other countries. Therefore South Korea's experience in dealing with Covid-19 is part of the Covid-19 policy formulation process in Indonesia

Methodology

This paper uses descriptive qualitative research methods. Qualitative research is one form of research that describes and analyzes human social reality. Meanwhile, descriptive research is research aimed at describing and

describing and mapping facts based on a particular perspective or frame of mind (Mahmud, 2011, p. 100). Data collection techniques are done through library research. A literature study is a data collection technique by conducting a study of books, literature, notes, and reports relating to the problem being solved (Nazir, 2003, p. 27). In this case relating to news, reports, journals, and other writings related to the decision-making process and topics about Covid-19.

III. UTILIZATION OF TECHNOLOGY BY SOUTH KOREA IN HANDLING COVID-19

South Korea has become one of the countries that have successfully resisted the spread of Covid-19 through the use of its various technologies. The beginning of Covid-19 cases in Korea began with a small number of cases before finally exploding in number. The explosion in the number of Covid-19 patients in Korea can be focused on "patient 31." part of the Shincheonji Church of Jesus sect, which despite having signs still came to the meeting of the sect. A few days after that the Korea Centers for Disease Control and Prevention announced that there were 9,300 people who came to the sect meeting with 31 patients and 1,200 of them reporting flu symptoms. Hundreds were then tested positive over the next few days and by the end of February, the number of cases in South Korea jumped above 5,000.

Even so, South Korea, with 8,961 cases and 111 deaths on March 23, experienced a decrease in the growth of cases with daily cases on March 23 only 64 new cases. This number is far from the worst period in February, where South Korea recorded more than 900 cases per day. The decline in the growth of this case occurred because of the success of South Korea in conducting mass tests aided by quarantine of anyone who came in contact with a virus carrier. After a major failure to deal with the MERS outbreak in 2015, South Korea tidied up its disease control system to improve the quality of large-scale health systems and set up a biotech industry that can produce test kits quickly. In addition to ensuring that the spread of Covid-19 can be monitored, South Korea uses smart city infrastructure to find out the location of a patient and see who might be in contact with that person (Sonn, 2020).

There are several ways in which the South Korean government is tracking its people in the context of handling Covid-19, namely: 1) through accessing credit cards and debit cards owned by its citizens. South Korea has the largest proportion of cashless transactions in the world. So by tracking the transaction, it will be possible to see

someone's movements viewed from the transaction history of the card. 2) Through mobile phones, where as one of the countries with the largest and most sophisticated mobile phone ownership, the location of the handphone and its owner can be automatically recorded accurately because it is connected with one to three transmitters. More importantly cellphone companies require all customers to provide their national names and identification numbers (ID numbers) so that it is possible to track the position of anyone through their mobile phones (Sonn, 2020) especially as Korea has a 4G and 5G network which will make it easier to track the mobile networks of its citizens. 3) The last is through CCTV in large numbers scattered in various corners of South Korean cities. In 2010, the population could be seen through cameras an average of 83.1 times per day (Samiaji, Bhagaskara, Maheswara, & Ardhie, 2020). Through CCTV, it will certainly make it easier to track the movements of Covid-19, ODP, or PDP patients and see who is interacting with them at the time. Utilization of these technologies has greatly helped South Korea in tracking its people who are indicated to be infected with Covid-19, OPD, or PDP so that the spread of Covid-19 can be suppressed.

In addition, a new Covid-19 patient can also be compared with previous Covid-19 patients by using geographical data that can determine when, where, and who is causing a new patient. If a patient cannot be connected to an existing patient, it can be concluded that there are patients who are not registered and the government can identify the person using the same system. The results of this tracking are used not only by health workers, but also open to the public through the central government website, a free application that shows the location of the outbreak, and text messages about local cases (Sonn, 2020). Korea has an application to monitor the development of Covid-19 that can be downloaded, accessed and utilized by its citizens to raise awareness of the dangers of Covid-19 and to pay more attention to the surrounding environment as a form of vigilance.

The application is also required to be installed by foreigners who have just arrived in Korea and are required to quarantine / independent isolation for 14 days. During the quarantine, foreigners are required to fill in the data in the application related to health conditions every day, it is a form of supervision so that citizens comply with the Korean government policy. Because if you don't comply, there will be strict sanctions that will be given by the Korean Government. An example is an Indonesian citizen who returned to Korea (a chef), who was required to be alone for 14 days, but apparently he did not and traveled to

another place. This was discovered by the Korean government and finally given strict sanctions to be deported from Korea. The seriousness of the Korean government in dealing with Covid-19 is exemplary by Indonesia to suppress the widespread spread of Covid-19. The application developed earlier will also help the community to avoid vulnerable areas without the need for massive lockdowns. Of course, this can be seen as a breach of personal freedom, but at the expense of a little personal data, the government can ensure that viruses such as Covid-19 can be dealt with minimal casualties.

In addition, South Korea also carries out a Covid-19 drive-thru-test service policy that can be done in a car without people having to get out of their cars, so that this policy can reduce the burden on hospitals and reduce the health risks of medical personnel and speed up the rapid test process, so easy detection of Covid-19 patients. In tracking patients Covid-19 South Korea carried out various stages, namely: 1) determining the location of contacts (route of the patient), 2) evaluating exposure risk, 3) contact classification, and 4) contact management. The location of contact is determined through an initial identification process, by interviewing patients, and their acquaintances, and by objective verification of the information investigated (COVID-19 National Emergency Response Center, 2020). These things are collaborated with data from credit/debit cards, cellphones, CCTV, etc. as a form of comparison and confirmation of data so that the data is more comprehensive and accurate. Tracking mechanism of the Covid-19 patient as seen in the figure.1.

The use of methods that objectively verify patient route claims (records of medical facilities, GPS, card transactions, and CCTV) for investigation of COVID-19 contact in South Korea has provided accurate information about the location, time of exposure, and details of the situation, thereby reducing negligence. in the patient route due to withdrawal or confirmation of bias that may arise from patient interviews (COVID-19 National Emergency Response Center, 2020). The utilization of technology in the context of handling Covid-19 is indeed needed for now. Through this technology, health authorities can find out who has had close contact with after infection. The movement of new patients can be compared with previous patients who use geographic information systems. The comparison reveals precisely where, when, and from whom the new patient was infected. The tracking results are not only used by health authorities but also published through national and local government websites, free smartphone applications that indicate the location of the infection, and

text message updates about new local cases. This helps

residents avoid infection hotspots.

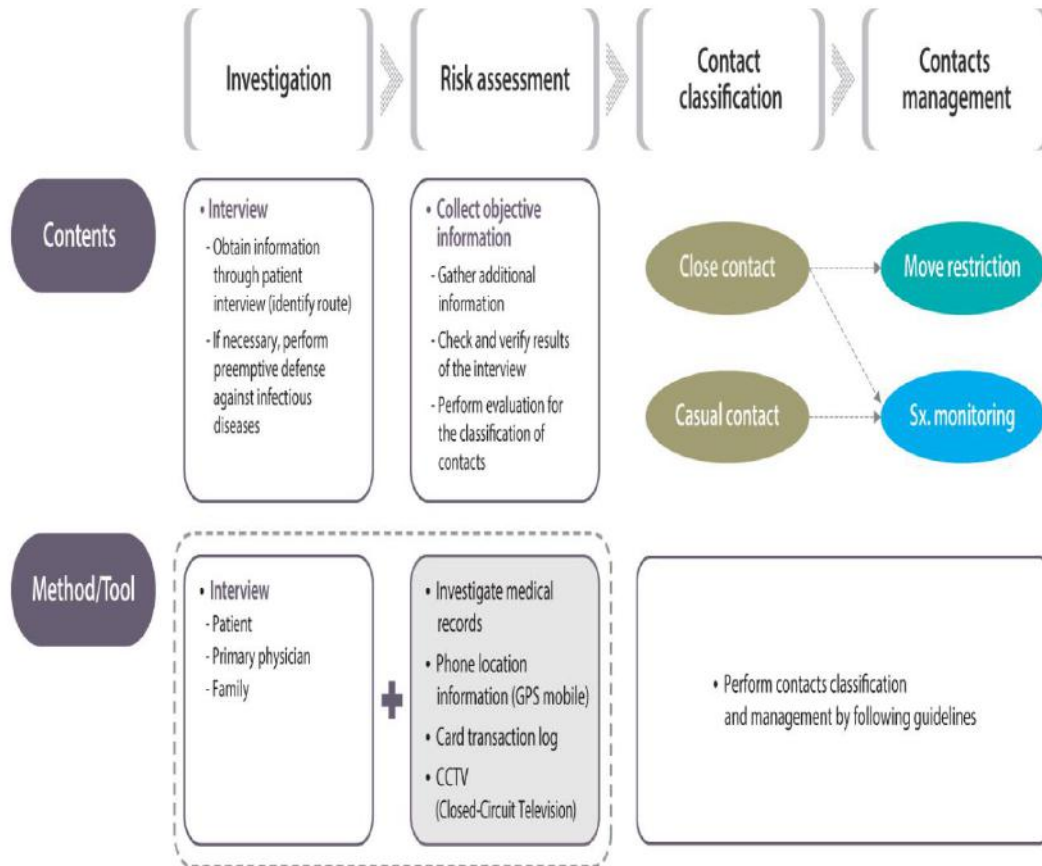


Fig.1: Mechanism of Covid-19 Patient Tracking in South Korea
(source (COVID-19 National Emergency Response Center, 2020))

In this case, the utilization of the technology can finally be said to have violated a person's privacy by accessing his personal ownership, but in an urgent condition, it could be violated because it is in the interests of the state to save its citizens from Covid-19.

IV. INDONESIAN COVID-19 POLICY FORMULATION BASED ON SOUTH KOREA'S EXPERIENCE

Based on the policies that have been carried out by South Korea in dealing with Covid-19, Indonesia can learn from the policies adopted by Korea to be applied in Indonesia. Specifically in the use of technology to detect and track the contact of people who have met or had direct contact with Covid-19 patients. Indonesia needs to do aggressive tracking to make sure that their positive location is Covid-19 and to provide health facilities that are cheap and easily accessible to all levels of society. The government also needs to quickly carry out travel restrictions for things that are not essential to reduce the

chance of further spread. To ensure that people do not panic and can follow government regulations, they must also ensure that people can continue to consume and be healthy during these travel restrictions. Government resources also need to be quickly reallocated to expedite financing and provision of health services and Covid-19 examinations. If the government does not do it quickly, then Indonesia will repeat what happened in Italy. Delay in action will only exacerbate the total effect and force the country to impose lockdown.

Utilization of technology through access to credit and debit cards, viewing phone contact history, viewing social media owned (Instagram, Twitter, Facebook, line, etc.) from Covid-19 patients will help track where patients go and meet with anyone who can finally be confirmed through CCTV data. Regarding tracking the location of mobile phones is still difficult to do in Indonesia because not all IMEIs and citizens' identities are correctly listed. This becomes the weakness of the tracking system implementation, or it can also track through IMEI and

MSSDN from the cellphone as part of the local positioning service (LBS), to track the movement of the cellphone owner. However, the purchase of a cellphone in Indonesia is different from South Korea which clearly stipulates the purchase of a cellphone accompanied by filling in its residence identification number. So for cases in Indonesia, seeing the history of calls, text messages, Whatsapp, etc. is an important strategy to do now to confirm the data of interviews with patients.

In addition, the utilization of data from start-up applications such as motorcycles and grabs can also be used to track where patients have been before finally contracting Covid-19. Through the application history, it will be tracked and confirmed with patient interview information. While in the use of CCTV, not all corners of the region in Indonesia have/installed CCTV, only buildings, houses, office areas in big cities that have CCTV, so it will be difficult if the patient lives in villages that are not tracked CCTV. But if the patient lives in a city that incidentally has a lot of CCTV, then the role of this CCTV will be important in tracking Covid-19 patients.

The development of the Covid-19 application is also important for Indonesia to increase the awareness of its citizens about the dangers of Covid-19 and to provide vigilance to residents regarding the location of Covid-19 patients so that citizens can avoid locations that are considered vulnerable to Covid-19. The application can be developed by the Ministry of Communication and Information in collaboration with local star-ups such as Gojek so that it can participate also support the development of national start-up to be more advanced.

Then the data that has been collected about Covid-19 patients and their distribution area can also be used as graphical info and it is hoped that these data will continue to be updated so that the public can monitor the progress of Covid-19. Government transparency will also be seen from the data submitted to the public so that public trust in the government will increase so that between the government and the community will arise "trust" which will certainly further support the handling of Covid-19 in Indonesia. Furthermore, the use of technology with a rapid test by drive-thru can also be emulated by Indonesia. Like in Korea which has 3 main principles in handling Covid-19, namely 3T (test, track, treat) or "test, detection, treat". With rapid treatment, the spread of Covid-19 can be suppressed and infected people can be treated immediately.

V. CONCLUSION

South Korea's experience in dealing with Covid-19 by utilizing technology is indeed worthy of being an example for other countries, especially Indonesia. South Korea is very well utilizing technology through its smart city infrastructure to track Covid-19 patients. Various South Korean policies such as rapid tests, drive-thru tests can also be a guideline in formulating Covid-19 policies in Indonesia. The use of various technologies to detect Covid-19 patients and their distribution is now important for Indonesia. Tracking via credit/debit card transactions, tracking cellphone history (calls, text message, Whatsapp, etc.), cellphone GPS tracking, tracking through social media (Instagram, Twitter, Facebook, etc.), as well as tracking on start-up applications such as Gojek and Grab will make it easier for the government to be able to detect and suppress the distribution of Covid-19. The development of Covid-19 applications will also be more comprehensive in dealing with Covid-19 in Indonesia.

REFERENCES

- [1] Cigna. (2020). *Cigna.go.id*. Retrieved from Yang perlu diketahui tentang Coronavirus (Covid-19): <https://www.cigna.co.id/health-wellness/yang-perlu-anda-ketahui-tentang-coronavirus>
- [2] Citradi, T. (2020, Maret 8). *Dalam 2 Hari Ada 2 Kasus Positif Corona di RI, Artinya Apa?* Retrieved from CNBC Indonesia: <https://www.cnbcindonesia.com/>
- [3] COVID-19 National Emergency Response Center, E. &. (2020). Contact Transmission of COVID-19 in South Korea: Novel Investigation Techniques for Tracing Contacts. *Osong Public Health and Research Perspectives Vol 11 (1)*, 60-63.
- [4] Dye, T. R. (1978). *Understanding Publik Policy*. New Jersey: Prentice-Hall, Engelwood Cliff.
- [5] Easton, D. (1955). *The Political System: An Inquiry into the State of Political Science*. New York: Knopf.
- [6] Hidayat, S. (2020). *Systemic Source and the Influence of External Environment in Foreign Policy*. *Silabus Mata Kuliah Analisa politik Luar Negeri (APLN), Prodi Diplomasia Pertahanan universitas Pertahanan*. Sentul, Bogor: Universitas Pertahanan.
- [7] Jakarta, P. D. (2020). *corona.jakarta.go.id*. Retrieved from Siapa yang termasuk OPD dan PDP: <https://corona.jakarta.go.id/uploads/infographics/id/Siapa%20Oyang%20Termasuk%20ODP%20dan%20PDP.pdf>
- [8] Jensen, L. (1982). *Explaining Foreign Policy*. New Jersey: Prentice Hall, Inc., Englewood Cliffs.
- [9] Nugroho, R. D. (2004). *Kebijakan Publik, Formulasi, Implementasi, dan Evaluasi*. Jakarta: Gramedia.
- [10] Nuraini, R. (2020, Maret 2). *Kasus Covid-19 Pertama, Masyarakat Jangan Panik*. Retrieved from Indonesia.go.id: <https://indonesia.go.id/>

-
- [11] Samiaji, Y. G., Bhagaskara, F. H., Maheswara, R. P., & Ardhie, B. I. (2020, Maret 28). *Economica*. Retrieved from Covid-19: Risiko, Efek, dan Langkah Penanggulangan: <https://www.economica.id/2020/03/28/covid-19-risiko-efek-dan-langkah-penanggulangan/>
- [12] Sonn, J. W. (2020, Maret 19). *The Conversation*. Retrieved from Coronavirus: South Korea's success in controlling disease is due to its acceptance of surveillance: <https://theconversation.com/coronavirus-south-koreas-success-in-controlling-disease-is-due-to-its-acceptance-of-surveillance-134068>
- [13] WHO. (2020). *World Health Organization*. Retrieved from Coronavirus: https://www.who.int/health-topics/coronavirus#tab=tab_1
- [14] Widyaningrum, G. L. (2020, Maret 12). *National Geographic Indonesia*. Retrieved from WHO Tetapkan COVID-19 Sebagai Pandemi Global, Apa Maksudnya?: <https://nationalgeographic.grid.id/read/132059249/who-tetapkan-covid-19-sebagai-pandemi-global-apa->