

# CHAPTER I

## INTRODUCTION

### 1.1 Research Background

Coronavirus or Covid-19 (coronavirus disease 2019) is a new disease with a type of disease caused by a virus that has shocked the world and has become a disaster for most countries in the world, including Indonesia. In December 2019, a novel coronavirus was discovered in Wuhan, Hubei Province, China, which caused a rapid spread of pneumonia cases in Wuhan and adjacent areas in China (Sheng, 2020). Until the end of 2020, Covid-19 is still a problem in various countries, because its impact is very large and widespread. This virus first entered Indonesia as described above by Putri (2020) that “President Joko Widodo reported that he first found two cases of COVID-19 infection in Indonesia on March 2, 2020”. As a result, several sectors are affected by this outbreak.

The impacts that occur as a result of Covid-19 include various sectors such as health, economy, and society, which greatly affect public activities, thus harming various parties, be it the state, the private sector, and the public itself. This has caused a lot of controversy around COVID-19, including the weakening of the economy and social activities being banned for the time being (Aulia et al., n.d.). According to (Dwina, n.d.) “The impact of the Covid-19 outbreak has harmed various economic actors”.

This virus is fast in its spread so it cannot be denied that so far many countries have been declared exposed to Covid-19. According to WHO, Globally, as of 6:51 pm CET, 15 December 2020, there have been 71,581,532 confirmed cases of COVID-19, including

1,618,374 deaths, reported to WHO (*WHO Coronavirus Disease (COVID-19) Dashboard / WHO Coronavirus Disease (COVID-19) Dashboard*, n.d.). Then for data in Indonesia according to WHO, In Indonesia, from Jan 3 to 6:51 pm CET, 15 December 2020, there have been 623,309 confirmed cases of COVID-19 with 18,956 deaths (*WHO Coronavirus Disease (COVID-19) Dashboard / WHO Coronavirus Disease (COVID-19) Dashboard*, n.d.).

Furthermore, if the data related to Covid-19 is more in terms of regions in Indonesia such as the province of the Special Region of Yogyakarta, citing information obtained from (*UPDATE Covid-19 Di Jatim, DIY, Bali, NTT, NTB, Kalbar Dan Kalsel 14 Desember 2020 Halaman All - Kompas.Com*, n.d.) that “Based on data in the last 24 hours until Monday (14/12/2020) at 12.00 WIB, Covid-19 cases in the DIY province, Positive: 8,258, Recovered: 5,668, and Died: 169”. The information provided has referred to the latest data sourced from Wikipedia and JHU CSSE COVID-19 Data. Currently, the Covid-19 case in Yogyakarta continues to grow, this is because of the implementation of the New Normal and Yogyakarta is one of the tourist areas that are in great demand by the public, so at this time, the Special Region of Yogyakarta with a red zone status is included in the top 10 regions with Covid-19 cases most in Indonesia.

With the continued increase in Covid-19 cases, the government's efforts in dealing with Covid-19 have been carried out in various ways, including by carrying out information technology-based handling. Big data and artificial intelligence (AI) have helped facilitate COVID-19 preparedness and the tracking of people, and so the spread of infection, in several countries (Whitelaw et al., 2020). According to Etikasari et al. (2020) that “ One of the solutions to support early preventive measures is using Information Communication and Public Education (IEC) about Covid-19 including the development of the spread, symptoms,

and steps that must be taken by the public”. Utilizing information technology in handling Covid-19, will support the *social distancing* implemented by the government.

Currently, the information technology created by the government in preventing Covid-19 is the “PeduliLindungi” application. This application will further identify people who have been in close proximity to people who have tested positive for COVID-19 or PDP (Patients Under Monitoring) or ODP (People Under Monitoring) (*Mengenal Aplikasi PeduliLindungi: Cara Kerja Dan Menggunakannya - Tirto.ID, n.d.*).

Of course, with this mobile-based application, the handling of Covid-19 will be faster, because in this digital era the majority of people already have cellphones. However, handling Covid-19 with this application may experience problems. As explained below, the PeduliLindungi application developed by PT Telekomunikasi Indonesia Tbk, (Telkom) and the Ministry of Communication and Information (Kominfo) has not been widely used by the Indonesian population (Bisnis.com, 2020).

That way researchers want to know how the public participation in this application in dealing with Covid-19. Meanwhile, as we know that with this application there needs to be cooperation between the government and the public itself.

## **1.2 Problem Formulation**

Taking into account the background above which discusses public participation in the PeduliLindungi application as a means of using technology in handling Covid-19, the researchers formulated the research problem as follows:

1. What is the level of public participation with the "PeduliLindungi" application as a means of handling Covid-19?

2. What is the role of “PeduliLindungi” in helping to prevent the spread of Covid-19?

### **1.3 Research Objective**

Based on the problem formulation, this study aims to find out how public participation in the “PeduliLindungi” application is a technological means of handling Covid-19 in carrying out activities in the new normal era.

### **1.4 Research Benefit**

#### **1. Theoretical Benefit**

- a. Provides deeper knowledge of writing and related theories.
- b. Hoping to be a research material for students and other communities.

#### **2. Practical Benefit**

- a. In this case, it is hoped that this can be a reference for the government in taking steps to deal with Covid-19.

### **1.5 Literature Review**

Based on the research to be carried out, there are at least 20 pieces of literature that can be used as reference material or comparisons from previous studies that are related to this research. The statements conveyed such as, a novel coronavirus was identified as the causative agent and was subsequently termed COVID-19 by the World Health Organization (WHO). Considered a relative of severe acute respiratory syndrome (SARS) and the Middle East respiratory syndrome (MERS), COVID-19 is caused by a beta coronavirus named SARS-CoV-2 that affects the lower respiratory tract and manifests as pneumonia in humans (Sohrabi et al., 2020).

In addition, Susilo et al. (2020) also explained that “The first COVID-19 reported in Indonesia on March 2, 2020, was two cases”. That way Yunus & Rezki (2020) explained that “The policies that emerged due to the coronavirus outbreak were seen by the closure of several access roads within a certain time, restrictions on the amount of transportation, restrictions on transportation operating hours, which of course were intended to be able to restrain the pace of public activities out of the house”. This was also conveyed by Nurhalimah (2020) that the results of her research stated that “Indonesia had experienced a condition where the public's concern about Covid-19 was quite large, so that a government policy was needed to carry out a Lockdown, as an effort to break the chain of the spread of the coronavirus”.

As a result of the lockdown, the country's economy from stocks to the value of the rupiah slowly began to weaken, and the economy of small and medium-sized people started from pedicab drivers, angkot drivers, grabs, gojek, stalls, satay vendors, traveling sellers, photocopies, cafes, cake bakers, small shops, even wholesalers, malls, hotels are all concerning (Suliswanto, 2020).

This also has an impact on the education sector, as explained by Syah (2020) that “The temporary closure of educational institutions as an effort to contain the spread of the Covid-19 pandemic worldwide has an impact on millions of students, not least in Indonesia”. Another impact is also explained by Nurwati (2020) that “In Indonesia, the COVID-19 pandemic, which is currently continuing to escalate, not only has the potential to cause a contraction in economic growth, but also an increase in the number of unemployed on a large scale”. Then socially, it is possible that household problems also

arise as a result of social distancing policies that require people to stay at home or not to do activities outside the home if they are deemed not important (Radhitya et al., 2020).

Psychological things can also attack, especially for health workers as explained by Rosyanti & Hadi (2020) that “Stress-related reactions include changes in concentration, irritability, anxiety, insomnia, reduced productivity, and interpersonal conflicts, in the latter case, they will experience more severe psychiatric conditions, separation from family, abnormal situations, increased exposure, fear of transmission of COVID-19, feelings of failure to handle a poor prognosis, inadequate technical facilities, PPE, tools, and equipment, to help treat patients”.

Another impact explained by Ros Maria & Raharjo (2020) is social distancing (physical distancing) to anticipate the spread and expansion of the Covid 19 pandemic has prompted changes and various adjustments in various fields, both trade, and worship, education, government, and politics. So according to the explanation by Marpaung, (2020), the new normal is the answer to the problems of the economic collapse that occurred in Indonesia due to the impact of the COVID-19 pandemic. According to an explanation from Kumala & Junaidi (2020) that “New Normal is a new paradigm of life, where humans must make peace side by side with Covid-19, namely living according to health protocols, such as a healthy and clean lifestyle and using masks as long as a vaccine has not been found”.

An explanation from Tuwu (2020) that “The government has also implemented social assistance and social protection policies to ensure that the community can survive, not only the Social Welfare Services Government group but also the high-class community”. Further explanation from Olivia et al. (2020) that “The government's policy responses have so far been at steadying the ship, addressing both the needs of the poor and

the potentially poor (vulnerable) groups”. According to Currie (2020) that “The “new normal” should reflect what has been learned from COVID-19 and preparedness for the future”. According to Komalasari (2020) that “During the COVID-19 pandemic, technology played an important role in keeping community activities functioning during the Large-Scale Social Restrictions (PSBB)”.

Thus, the role of technology is needed as a tool rather than the implementation of a policy. As stated by Darimi (2017) that “Information and Communication Technology (ICT) is a program, for tools, manipulation and conveying information”. Further explanation from Atthahara (2018) that “In the digitalization era which is developing rapidly in the field of Technology, Information and Communication in the world today, it has an impact on the implementation of internet-based government or electric government at the central level to the local government level”. Efforts to use technology according to Vaishya et al. (2020) that “This result-driven technology is used for proper screening, analyzing, prediction and tracking of current patients and likely future patients”. According to Pan (2020) that “These technologies help reduce the transmission of COVID-19 and maintain normal social order”.

Thus, the steps taken by the government are as explained by Fadli (2020) that “The Indonesian government through the Ministry of Communication and Information (Kominfo) developed an Android-based Care for Protection application that can be downloaded freely by the public to help deal with the spread of the Coronavirus more and more rampant day by day”. With the application as a technological tool in dealing with Covid-19, of course, a collaboration between the government and the public is needed in providing valid information or data so that it always remains under supervision by the

government regarding Covid-19. Circumstances that require the government to be quick in making decisions and solving problems certainly cannot run alone without the participation of the public. The efficiency of the application released by the government regarding the handling of Covid-19 will be tested. The interesting thing is whether this application will have a big impact on the public, so this application can be used as an excuse to be used by the public in fighting and suppressing the spread of Covid-19 in Indonesia. The following is related information from the 20 studies described above:

**Table 1.1.** The literature review of research

No.	Writer's name	Research Title	Research result
1.	(Sohrabi et al., 2020)	World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19)	A novel coronavirus was identified as the causative agent and was subsequently termed COVID-19 by the World Health Organization (WHO). Considered a relative of severe acute respiratory syndrome (SARS) and the Middle East respiratory syndrome (MERS), COVID-19 is caused by a beta coronavirus named SARS-CoV-2 that affects the lower respiratory tract and manifests as pneumonia in humans.
2.	(Susilo et al., 2020)	Coronavirus Disease 2019: Recent Literature Review	The first COVID-19 was reported in Indonesia on March 2, 2020, with two cases.
3.	(Yunus & Rezki, 2020)	Lockdown Policy to Anticipate the Spread of the Corona Virus Covid-19	The policies that emerged due to the coronavirus outbreak were seen in the closure of several access roads within a certain time, restrictions on the amount of transportation, and restrictions on transportation operating hours, which of course were intended to be able to restrain the pace of people's activities out of the house.
4.	(Nurhalimah, 2020)	Efforts to Defend the Country Through Social Distancing and Lockdown to	The results of his research stated that Indonesia had experienced a condition where the public's concern about Covid-19 was quite large, so a government policy was needed to carry out a



		Overcome the COVID-19 Plague	Lockdown, as an effort to break the chain of the spread of the Covid-19 coronavirus.
5.	(Suliswanto, 2020)	Social Movement to Overcome the Economic Impact of COVID-19	The country's economy from stocks to the value of the rupiah slowly began to weaken, and the economy of small and medium-sized people started from pedicab drivers, angkot drivers, grabs, gojek, stalls, satay vendors, traveling sellers, photocopiers, cafes, bakers, small shops, even wholesalers, malls, hotels are all concerning.
6.	(Syah, 2020)	The Impact of Covid-19 on Education in Indonesia: Schools, Skills, and the Learning Process	The temporary closure of educational institutions as an effort to contain the spread of the Covid-19 pandemic worldwide has an impact on millions of students, not least in Indonesia.
7.	(Nurwati, 2020)	The Impact of the Covid-19 Pandemic on the Increase in Unemployment Rates in Indonesia	In Indonesia, the COVID-19 pandemic, which is currently continuing to escalate, has the potential not only to cause a contraction in economic growth but also to increase the number of unemployed on a large scale.
8.	(Radhitya et al., 2020)	Impact of the Covid-19 Pandemic	Socially, household problems can arise as a result of social distancing policies that require people to stay at home or not to do activities outside the home if they are deemed not important.
9.	(Rosyanti & Hadi, 2020)	Psychological Impact in Providing Health Care and Health Services for COVID-19 Patients on Health Professionals	Stress-related reactions include changes in concentration, irritability, anxiety, insomnia, reduced productivity, and interpersonal conflicts, in later cases, they will experience more severe psychiatric conditions, separation from family, abnormal situations, increased exposure, and fear of COVID-19 transmission. 19, feelings of failure in dealing with poor prognosis, inadequate technical facilities, PPE, tools, and equipment, to help treat patients.
10.	(Ros Maria & Raharjo, 2020)	Adaptation of Productive Age Groups During the Covid-19 Pandemic Using Reality Therapy Method	Social distancing (physical distancing) to anticipate the spread and expansion of the Covid-19 pandemic have prompted changes and various adjustments in various fields, including trade, worship, education, government, and politics.

11.	(Marpaung, 2020)	COVID-19 and the New Normal	New normal is the answer to the problems of the economic collapse that occurred in Indonesia due to the impact of the COVID-19 pandemic.
12.	(Kumala & Junaidi, 2020)	Business Strategy and Utilization of Tax Policy During the COVID-19 Pandemic and New Normal Era (Case Study of SME Marketplace Actors	New Normal is a new paradigm of life, where humans must make peace side by side with Covid-19, namely living according to health protocols, such as a healthy and clean lifestyle and using masks as long as a vaccine has not been found.
13.	(Tuwu, 2020)	Government Policy in Handling the Covid-19 Pandemic	The government has also implemented social assistance and social protection policies to ensure that the community can survive, not only the Social Welfare Services Government group but also the high-class community.
14.	(Olivia et al., 2020)	Indonesia in the Time of Covid-19	The government's policy responses have so far been aimed at steadying the ship, addressing both the needs of the poor and the potentially poor (vulnerable) groups.
15.	(Currie, 2020)	A Lens on the Post-COVID-19 "New Normal" for Imaging Departments	The "new normal" should reflect what has been learned from COVID-19 and preparedness for the future.
16.	(Komalasari, 2020)	Benefits of Information and Communication Technology During the Covid-19 Pandemic	During the COVID-19 pandemic, technology plays an important role in keeping community activities functioning during the Large-Scale Social Restrictions (PSBB).
17.	(Darimi, 2017)	Information and Communication Technology as Media	Information and Communication Technology (ICT) is a program, for tools, manipulation, and conveying information.
18.	(Pan, 2020)	The Use of New Technologies (Big Data, Artificial Intelligence, Cloud, and Internet of Things) as Mitigation Efforts for the COVID-19 Pandemic: Contemplation of New Technology-Based	These technologies help reduce the transmission of COVID-19 and maintain normal social order.

		Policy Applications in Indonesia	
19.	(Vaishya et al., 2020)	Artificial Intelligence (AI) applications for the COVID-19 pandemic	This result-driven technology is used for proper screening, analysis, prediction, and tracking of current patients and likely future patients.
20.	(Fadli, 2020)	Get to know Covid-19 and prevent its causes with the “Caring for the Environment” Android-Based Application	The Indonesian government through the Ministry of Communication and Information (Kominfo) developed an Android-based Care for Protection application that can be downloaded freely by the public to help deal with the spread of the Coronavirus which is increasingly rampant.

## 1.6 Theoretical Framework

### A. Application as Information Technology

Talking about technology means talking about the progress of the times. Today's technology has indeed developed very far and almost all human activities always utilize existing technology. In this digital era, humans in general have a new lifestyle that cannot be separated from all electronic devices (Setiawan, 2017). Because with technology, humans can easily do or finish everything. With technology, all information from foreign countries can be obtained easily and efforts to share information are also very easy to do.

Currently, the global outbreak of Covid-19 is becoming a serious problem. Utilizing technology as a tool to help deal with Covid-19, is certainly a new thing. According to Vaishya et al. (2020) “Healthcare delivery requires the support of new technologies like Artificial Intelligence (AI), Internet of Things (IoT), Big Data and Machine Learning to fight and look ahead against the new diseases”. Further explanation from Whitelaw et al. (2020) that “The scale of coordination and data management is required for effective implementation of these strategies has in most successful countries

relied on adopting digital technology and integrating it into policy and health care”. The role of technology in helping to collect data related to public health history will be much easier to do. Various forms of technology might be used as a reference in creating new things that can be reached by many people over long distances.

Android and IOS-based technology are one of the technologies that are widely chosen in dealing with Covid-19 in every country with various uses. One of them is as explained by Whitelaw et al. (2020) that “Singapore has launched a mobile phone application that exchanges short-distance Bluetooth signals when individuals are in proximity to each other. The application records these encounters and stores them in their respective mobile phones for 21 days. If an individual is diagnosed with COVID-19, Singapore's Ministry of Health accesses the data to identify contacts of the infected person”. Android and IOS-based technology is the right thing because the majority of people have it. Further explanation regarding technology in dealing with Covid-19 is for example in an article that “WeChat and AliPay, two mobile phone applications that are widely used by the Chinese community, provide a Health Codes system, where residents who want to leave must register and are given a color QR Code. which shows green, yellow, or red to indicate their Health status” (Shafira, 2020).

In Indonesia, in handling Covid-19, they choose to use applications for screening and tracking. Applications that play a role in helping to prevent Covid-19 have been used as information obtained from Desi K. (2020), CNN Indonesia (2020), Kominfo (2020) such as PeduliLindungi, 10 Rumah Aman, Chatbot Covid-19, Neurabot, Qlue, FightCovid19, TraceTogether, Covid Symptom Tracker, e-hack, Close Contact Detector, AC19, Home Quarantine, Mobile COVID -19 Track, AI Detection of COVID-19, and Multicenter

Clinical Trial. However, all existing AIs do not get support from the public in their use due to a lack of communication between stakeholders, weak public support, and government policies that are often not supported. The application “PeduliLindungi”, explained in a journal that “Ministry of Communication and Informatics, Ministry of Health, Ministry of SOEs and National Disaster Management Agency (BPNN) collaborated to develop PeduliLindungi application to cope with and prevent the Covid-19 pandemic” (Fadli, 2020). This application will continue to be developed by adjusting the existing circumstances.

To measure the application of “PeduliLindungi” as information technology in handling Covid-19 using the theory of E-government as a service concept that uses information technology, it can be divided into several levels, namely first, preparation; second, maturation; third, stabilization; and fourth, utilization. The application of the e-government system is expected to be able to upgrade the government system towards being more efficient, effective, transparent, and accountable (Atthahara, 2018).

## **B. Public Participation**

Participation is active public participation in all development processes both in terms of planning, decision making, implementation and evaluation of activities and is the highest order of public involvement (*View of Analisis Partisipasi Masyarakat Dan Kepemimpinan Terhadap Tingkat Keberhasilan Proyek Program Nasional Pemberdayaan Masyarakat (Pnpm) Mandiri Perdesaan Di Kecamatan Gerokgak, Buleleng-Bali, n.d.*). When the government makes a policy, public participation is needed as a subject in the success of implementing the policy and as a benchmark for its accuracy. After the policy has been drafted, it is advisable to pay attention to the public communication process,

especially the delivery of the results of the policy as intensively as possible in various forms of communication media and disseminated to every activity that has a broad impact on the public and is socialized in other forms of public communication (Najmulmunir et al., n.d.).

This is also related to the concept of Good Governance as explained by Dan et al. (2013) that “To realize good governance it takes the government's seriousness to achieve it, one aspect that must be met is the participation of the public in government programs. Because public participation is one of the principles and also a pillar to realize Good Governance”. According to Muhammadiyah (2013) that “The experiences show that governance and development without involving the public's participation will face serious problems”.

Therefore, the government that makes technology-based policies to improve public services will be very appropriate in situations where technology is something that cannot be avoided. According to an explanation from Hasibuan & Sulaiman (2019) that “In the current era of globalization and digital, fast, precise and accurate information services are needed. Because today's society is a society that needs information, where space and time are not a barrier to getting all the information needed”. With the existing sophistication, over time human behaviour and activities have reached an understanding of technology, therefore technology-based policies will be very useful. According to Pilliang (2012) that “Cyberspace creates a life that is built mostly maybe later entirely by a life model mediated fundamentally by technology so that various natural functions are now taken over by its technological substitution, which is called artificial life”.

However, there is still the possibility that public participation will be questioned. Of course, this happens for various reasons, be it from the policies made and how they are

socialized or other things that come from the public itself. The lack of understanding of people's technology can also be used as an excuse, because of the difference in age and lifestyle they experience. The community is a very important stakeholder in implementing a policy. In this digital era, the government also makes policies that are solutions for the community itself based on technology, but the lack of participation from the community will be very influential. As a result, the government does not get support from the people.

In analyzing the phenomena in this study, the researchers used the Technological Acceptance Model (TAM) theory (Atnan et al., 2018). This theory can be used to see the level of public participation in the use of technology. This theory was first introduced by Davis (1986). This theory was developed from the Theory of Reasoned Action (TRA) by Ajzen and Fishbein (1980). The first unmodified technology acceptance model (TAM) uses five main constructs. These five constructs are as follows. 1). Perceived usefulness. The extent to which a person believes that using technology will improve his or her job performance. It is a belief in making decisions, someone believes that technology is useful then he will use it. 2). Perceived Ease of Use is defined as the degree to which a person believes that using technology will be effort-free. So if someone believes that the technology is easy to use then that person will use it and vice versa. 3). Attitudes towards Behavior Positive or negative feelings from a person when assessing the technology, also defined by Mathieson (1991) attitude here can be defined as an evaluation of the use of interest in using the system. 4). Interest in Using Technology Behavioral interest is a person's desire to use technology, someone will use technology if they have the desire or interest to use it. 5). Use of Technology Usage is defined as an action taken by a person,

where the person uses technology is measured by the amount of time spent interacting with the technology, and the frequency of its use.

### **C. Coronavirus Disease 2019 (Covid-19)**

Coronavirus or Corona Disease 2019 (Covid-19) or Severe Acute Respiratory Syndrome (SARS-Cov-2) is a virus that is endemic in the world. The World Health Organization (WHO) on March 11, 2020, declared the novel coronavirus (COVID-19) outbreak a global pandemic (Cucinotta & Vanelli, 2020). Further explanation from Shereen et al. (2020) that “The coronavirus disease 19 (COVID-19) is a highly transmittable and pathogenic viral infection caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which emerged in Wuhan, China and spreads around the world”. This virus is a virus that comes from animals and transmits among humans. Person-to-person transmission may occur through droplet or contact transmission and if there is a lack of stringent infection control or if no proper personal protective equipment is available, it may jeopardize the first-line healthcare workers (Wu et al., 2020). Efforts have been made to overcome this virus, ranging from recommendations for social distancing, physical distancing, Large-Scale Social Restrictions (PSBB), and self-quarantine to avoid spreading or breaking the chain of transmission.

Quarantine is the limitation of activities or the separation of a person who is exposed to an infectious disease as stipulated in the legislation, even though he has not shown any symptoms or is in the incubation period, or the separation of containers, transportation means, or any goods suspected of being contaminated from people or goods that are suspected of being contaminated. contain disease-causing or other sources of contamination to prevent possible spread to nearby people or goods (Rohim Yunus &



Rezki, 2020). However, the impact given is not only limited to public health which is threatened but the economy and social life will also be affected. At the beginning of February, the government released that in our country there were 2 positive cases of COVID-19, as soon as this news appeared then what happened, the scarcity of various kinds such as masks, hand sanitizers, antiseptics is very difficult to find among the community even if there is the price soars very high above the price normal (Dai, 2020).

The ability, speed, and effectiveness of the Indonesian government's poor and slow response and decision-making which is considered full of doubts are considered responsible for the high number of cases (Mohammad & Ansori, n.d.). Now the government has issued a new normal policy to return the wheels of the economy to society. New activities which of course require new adaptation to the provisions of the recommended health protocols will take time.

## **1.7 Conceptual Definition**

The conceptual definition is a benchmark for a problem that is used as a reference in research to facilitate researchers in carrying out their research. The following is the conceptual definition in this study:

1. Information Technology in handling Covid-19 (“PeduliLindungi” Application)

The “PeduliLindungi” application is an application from the government that is used in handling Covid-19 in Indonesia.

2. Public Participation in the “PeduliLindungi” Application

The enthusiasm from the public for the “PeduliLindungi” application as a means of using technology to handle Covid-19.

3. Coronavirus Disease 2019 (COVID-19)

The coronavirus or Covid-19 is a new virus originating from Wuhan, China which has spread almost all over the world and has become a world pandemic that has a pretty great impact in various sectors, so it needs fast handling.

## **1.8 Operational Definition**

The operational definition in this study is as follows:

### **I. Public Participation in the “PeduliLindungi” Application**

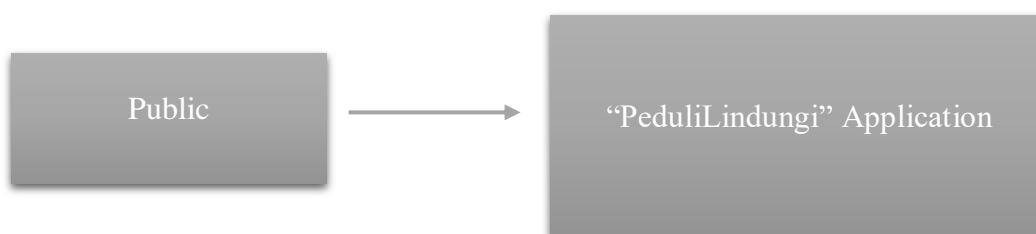
- a. Public Understanding of the “PeduliLindungi” Application
- b. Ease of Using the “PeduliLindungi” Application
- c. People's Attitudes Using the "PeduliLindungi" Application

### **II. Application of Information Technology in handling Covid-19**

- a. “PeduliLindungi” Application and Its Features
- b. Uses and Benefits of the “PeduliLindungi” Application
- c. “PeduliLindungi” Application Outreach Strategy

## **1.9 Framework of Thinking**

The government has created the “PeduliLindungi” application as a tool in dealing with Covid-19 in Indonesia. This application can provide information on the health history of its users and provide information related to the number exposed to certain areas with the tracking feature, which can detect movements exposed to Covid-19 for the past 14 days. That way the public will get a warning to implement the health protocol.



The application can already be used, while this application continues to be developed. However, there are still many people who still do not use this application as information technology in preventing Covid-19 from the government. The lack of support from the public for this application is of course for various reasons. In other words, the collaboration between the government as a facilitator and the public as its participants has not yet been established in the fight against Covid-19. Does this happen because the public has complaints about the “PeduliLindungi” application or against information or in terms of service performance?

## **1.10 Research Method**

### **1. Type of Research**

This study uses a mixed-method research method, it is explained that the mixed method is a research method that is applied when the researcher has questions that need to be tested in terms of outcomes and processes and involves a combination of quantitative and qualitative methods in one study Masrizal (2012).

The mixed-method is a case study type, where researchers will examine a particular case or phenomenon that exists in the public which is carried out in-depth to study the background, circumstances, and interactions that occur in the form of a program, activity, event, or group of individuals who are in a certain situation. certain (*Metode Penelitian Kualitatif: Konsep, Jenis, Contoh, Tujuan*, n.d.).

As for the type of this research according to the depth of analysis, namely descriptive research. Descriptive research analyzes only to the level of description, namely

analyzing and presenting facts systematically so that they can be easier to understand and conclude.

## **2. Research Location**

The location for this research is in the Special Region of Yogyakarta, Indonesia because the “PeduliLindungi” application is one of the applications in Indonesia in dealing with Covid-19 issued by the government for people in Indonesia. However, the form of public participation that is still lacking will be the use of applications as information technology in handling Covid-19.

## **3. Type of Data**

The types of data used in this study are primary data and secondary data which will be combined from both sources so that it is possible to get good results.

### **1. Primary Data**

Primary data is data collected by researchers through direct field data collection efforts. Therefore, primary data is referred to as the first data or raw data.

For the target resource persons in providing information related to the need for primary data, the researchers did this by using the interview method and determining the adequacy and suitability of the informants, to obtain data related to the role of the “PeduliLindungi” application in preventing Covid-19 in Indonesia and to find out responses from the public regarding information technology in “PeduliLindung” application as an effort to prevent Covid-19.

### **2. Secondary Data**

Secondary data is data that comes from various pre-existing information and is deliberately collected by researchers to be used in completing research data needs.

Researchers use data that can be obtained through websites, journals, papers, books, and other academic texts related to technology, participation, and Covid-19. The websites in question are <https://coronavirus.jhu.edu/map.html>; <https://covid19.who.int/>; <https://covid19.go.id/>; <https://bnpb.go.id/>; <https://www.kemkes.go.id/>; <https://www.kominfo.go.id/>; <https://www.jogjaprov.go.id/>; <https://www.dinkes.jogjaprov.go.id/>; <https://diskominfo.jogjaprov.go.id/>; and others.

#### **4. Data Collection Technique**

In this study, researchers used data collection techniques using survey methods, both online and offline, and using non-human sources or available literature studies.

##### **1. Survey and Sampling Techniques**

Researchers will survey to observe and determine the appropriate resource persons in providing information related to this research. This research, which is located in the Yogyakarta area, makes people who are currently in the Yogyakarta area respondents for this research.

The sampling technique used is the *purposive* sampling technique, which is used for random sampling which then becomes *representative* of the sample needed by distributing questionnaires to respondents at random to be used as research data.

##### **2. Questionnaire**

To get primary data from online questionnaires, researchers will use people who live in Yogyakarta as respondents to provide information about the government's efforts to use information technology in preventing the spread of

Covid-19 in Yogyakarta and efforts to socialize applications as information technology in preventing Covid-19.

### 3. Literature Study

A literature study will be used to determine the flow of the research, in addition to presenting data related to the data obtained, as research limitations, and this literature becomes the background of this research.

That way, the data that will be obtained from this literature study are related to (1) Public participation, (2) Information technology, (3) Applications for handling Covid-19, and (4) “PeduliLindungi” applications.

## 5. Data Analysis Technique

In the KBBI dictionary (Big Indonesian Dictionary (KBBI) Online, n.d.), analysis is defined as an investigation of an event (writing, deed, etc.) to find out the actual situation (cause, situation, and so on). For the technique of analyzing the data in this study, the researcher will perform the stages in analyzing the data that has been obtained from various sources which will then provide the results of this research. The data obtained will be processed by data analysis as follows:

### 1. Data collection

Data obtained from various sources will be collected to be used as material for research conducted.

### 2. Data reduction

The data that has been collected will be filtered so that researchers get the desired research flow.

### 3. Data analysis

To analyze the data obtained from various sources, the researcher will conduct an analysis based on the data obtained to be entered as needed.

4. Data presentation

The data will be presented by the researcher in such a way as the results from the sources obtained after the data analysis is carried out.

5. Conclusion

Researchers will conclude according to what has been obtained from the research.

*Systematic Diagram of the Preparation of the Data Acquisition Process.*

