

Technology's Role to Avoid the Spread of COVID-19

Meiryani,¹ Pariang Siagian, Lusianah, Theresia Lesmana

Abstract: *The world and Indonesia are currently focusing on counteracting the widespread corona virus. In an effort to minimize the impact, several countries have utilized application technology. Video call services such as FaceTime have also helped with virtual doctor visits or telemedicine, so patients can consult with doctors online and avoid hospital visits. Streaming movies also benefit because people choose home entertainment rather than going to public spaces. With the internet the public can keep abreast of the latest news about Covid-19 and not get caught up in hoax news or misinformation.*

Keywords: *Technology, Avoid, Spread, Covid-19, Viruses*

I. INTRODUCTION

Technology can be expected to be a facilitator and interpreter. Initially information technology was used only limited to data processing. With the growing development of information technology used only limited to data processing. With the growing development of information technology, almost all organizational activities have now been entered by the application and automation of information technology. Understanding of information technology can vary, although each definition has the same core. Information Technology and applied technology continue to be involved in overcoming the Covid outbreak19. Technology has played an important role in combating the corona virus pandemic (COVID-19). Covid-19 is an infectious disease caused by a new type of virus and experts in Indonesia and globally are still researching the extent of its malignancy and the extent of its spread. elderly groups and people with chronic (chronic) diseases such as heart disease, diabetes and lung disease are always a group that is more at risk for experiencing more serious illness.

Covid-19 is a contagious disease caused by a new type of corona virus, until now experts in Indonesia and globally are still researching the extent of its malignancy and the extent of its spread. In the previous corona virus type, it is known that the main spread is from close contact, person to person through the respiratory tract from coughing or sneezing (droplets). Lifestyle solutions that are inspired by the latest technology are even more attractive when people work from home and remote conferences. Communities that will avoid the crowd get food online, socialize online, and work from home. The number of positive cases of the corona virus continues to grow. all people must try to keep abreast of information about corona virus disease. The reason is, this virus has spread to more than 110 countries since December 2019. Information is changing very fast and many people get wrong information, especially on social media. Countries that have many cases have issued new regulations to stop the spread of the virus and overcome outbreaks.

¹ Accounting Department, Faculty of Economics and Communication, Bina Nusantara University, Jakarta, Indonesia 11480
meiryani@binus.edu

Accounting Department, Faculty of Economics and Communication, Bina Nusantara University, Jakarta, Indonesia 11480
Accounting Department, Faculty of Economics and Communication, Bina Nusantara University, Jakarta, Indonesia 11480
Accounting Department, Faculty of Economics and Communication, Bina Nusantara University, Jakarta, Indonesia 11480

II. LITERATURE REVIEW

WHO explains that coronaviruses are part of a large family of viruses that cause diseases that occur in animals or humans. Humans infected with the virus will show signs of respiratory tract infections ranging from the flu to more serious ones, such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS) or severe acute respiratory syndrome. Coronavirus itself is a new type of human being found since it appeared in Wuhan, China in December 2019, and was named Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-COV2). Thus, this disease is called Coronavirus Disease-2019 (Covid-19).

WHO announced Covid-19 to be the official name of the disease caused by the Corona virus originating from Wuhan, China. The name was given by WHO Director General Tedros Adhanom Ghebreyesus in Geneva, Switzerland on Tuesday, February 11, 2020. The abbreviation Covid-19 also has details, such as "co" meaning corona, "vi" refers to viruses, "d" for diseases, and 19 is the year the outbreak was first identified on December 31, 2019. Tedros explained that the name was chosen to avoid stigmatization, as the virus naming guidelines issued by WHO in 2015. The name of the virus or disease will not refer to the geographical location, animals, individuals, or groups of people. Previously, WHO gave a temporary name for this Corona virus as 2019-nCoV. While the Chinese National Health Commission temporarily called the Novel Coronavirus Pneumonia (NCP). According to WHO (World Health Organization) the main symptoms of Covid-19 are fever, dry cough and feeling tired. A number of patients can experience aches and pains, nasal congestion, runny nose, sore throat and diarrhea. Symptoms are usually mild and develop gradually. Some infected people do not show any symptoms and do not feel sick.

Extraordinary events corona virus has affected business activities in the world. The world of entertainment, tourism, transportation are some examples of sectors that are affected. The most important thing is to ensure that employees and customers are protected from corona virus transmission, both at the workplace, at the point of sale or at public places. Tell the sick employees to rest at home even if only a mild cough or cold. If possible, arrange for employees to work from home. Avoid large gatherings. As a substitute you can do conference calls. Make sure employees wash hands with soap and running water properly, don't shake hands and follow ethics when coughing or sneezing (cover with folded elbows or tissue that is immediately thrown away). Prepare hand sanitizer dispensers in important places such as near entrances/exits, light switches, dining areas, cashiers, toilets and others. Make sure soap and running water are available in the toilet.

Identify at-risk people and with them, discuss work from home options. Create more flexible policies that allow employees to work from home because they care for sick family members. Avoid business trips and if necessary, stay alert while traveling (see travel). Put Covid-19 prevention posters at work. Regularly clean the surface of objects that are often touched by employees with disinfectant fluids, such as computers, tables, and door handles. The corona virus spreads rapidly and many countries impose new regulations governing travel because it is important to keep up with the latest information. If you need to travel by public transportation, do the following hygiene behavior:

Wash hands with soap and running water for 20 seconds or if soap and water are not available, use hand sanitizer (60 percent alcohol). Most airlines carry out disinfectant cleaning, but you can also ensure the cleanliness of tables and armrests with disinfectant wipes or wipes and dispose of them safely. When traveling abroad, always check information about travel restrictions/restrictions or regulations in the destination country and to return to Indonesia. The rapid information about the development of the disease with symptoms similar to flu makes people need to know the meaning

of a number of terms. Here are the meanings of a number of terms related to COVID-19 which are summarized from various sources.

COVID-19

Abbreviation for coronavirus disease 2019 or coronavirus disease 2019. CO stands for corona, VI stands for virus, D means disease or disease. Meanwhile, 19 represents the year in which the virus was first discovered, namely 2019. The disease was caused by a severe infection of the Coronavirus 2 (SARS-CoV-2) Severe Acute Respiratory Syndrome.

Social Distancing

Efforts to stay away from associations, avoid mass gatherings, and keep distance between people. The recommended distance of about two meters.

Quarantine

Steps to separate and limit the movement of sick and healthy people who are suspected of having infectious diseases, to see whether they are really infected.

Insulation

The step separates sick people who have infectious diseases from healthy people to prevent the spread of disease.

Lockdown

Situations where people are not allowed to enter or leave a building or area due to an emergency. This protocol can usually only be submitted by someone in a position of authority such as a state or regional leader.

Virus

Is a microscopic sized parasite that infects cells of biological organisms. Reproducing by utilizing living cells because they do not have cellular equipment to reproduce themselves.

Epidemic

Spread of diseases with large numbers that attack quickly.

Pandemic

Diseases that attack people in large numbers and occur in many places. In short, a pandemic is a widespread epidemic.

Endemic

Diseases that infect large numbers of people that occur in a particular region or population.

Self-limiting Disease

A disease whose symptoms can heal itself. But that does not mean that medical care has no effect on faster patient recovery.

Superspreader (Super Transmitter)

The term for people who cause other people sick with a number that is far more than usual.

ODP (Insider Monitoring)

All people who come from countries that are believed to occur transmission between humans. Monitoring is intended to anticipate if the person is sick, so that they can be immediately checked.

PDP (Patient Under Supervision)

If ODP is sick with symptoms that lead to moderate or severe influenza such as cough, flu, fever, and respiratory problems, then it is directly used as PDP.

Suspect

If the PDP has a history of contact with other people who confirm positive COVID-19 then he becomes suspect.

Imported Case

Patients contract when they have or after traveling from abroad.

Information Technology

information technology according to several information technology experts:

1. According to O'Brien (2005; 46) information technology is technology that combines computing (computers) with high-speed communication lines that carry data, voice, and video.

2. According to Mc'Leod (2007: 71) defines Information Technology is one of the tools used by managers to cope with changes that occur. In this case the change in question is the change in information that has been processed and previously stored in the computer.

3. According to Wilkinson (2005: 196) defines Information Technology is a combination of computer technology that consists of hardware and software to process and store information with communication technology to channel information. Here communication technology is used as a means of channeling information, while the information is processed and stored in a computer.

4. According to Indriantoro (2000; 102) is a technology used to process data, including processing, obtaining, compiling, storing, manipulating data in various ways to produce quality information, namely relevant, accurate and timely information, which is used for personal, business and governmental purposes and constitutes strategic information for decision making. Technology that utilizes computers as the main device for processing data into useful information. Utilization of Information Technology Utilization of technology also relates to the behavior of using that technology to adjust tasks. Theory of attitudes and behavior (theory of attitudes and behavior), the use of personal computers (PCs) by workers who have knowledge in an optional environment will be influenced by individual feelings (affect) on the use of personal computers, social norms (social norms) in workplaces that pay attention to the use of personal computers, habits related to computer use, the expected individual consequences (consequences) of the use of personal computers and facilitating conditions in a conducive environment in the use of PCs. The factors that influence the use of information technology are as follows. 1. Social factors Social factors are defined as the level at which an individual assumes that other people convince themselves that he must use information technology.

Feelings (Affect) Individual feelings can be interpreted how individual feelings, whether pleasant or unpleasant in doing work using information technology. 3. Task Suitability The suitability of the task with information technology more specifically shows the relationship between the use of information technology and the task requirements. 4. Long-term consequences Long-term consequences are measured from the output produced whether it has benefits in the future, such as career advancement and increased opportunities to get more important jobs. 5. Conditions that facilitate the use of information technology conditions that facilitate the use of information technology include objectivity factors that exist in the work environment that facilitate the user in doing a job. 6. Complexity Complexity is defined as the level of innovation that is perceived as relatively difficult to understand and use. Jugianto (2008; 56).

Corona Virus Diagnosis

To determine whether the patient is infected with the Corona virus, the doctor will ask about the symptoms experienced by the patient. The doctor will also ask if the patient is traveling or living in an area that has a case of Corona virus infection before symptoms appear.

To confirm the diagnosis of COVID-19, the doctor will carry out the following follow-up examinations: blood sample test, throat swab test to examine sputum samples (PCR test), chest radiograph to detect infiltrates or fluid in the lungs

Types of Information Technology According to O'Brien (2005; 60) which includes information technology are: 1. Telecommunications Telecommunications is a network that enables one to communicate with others over long distances. Telecommunications makes it easy for librarians to connect with anyone for the purposes of developing their libraries. Telecommunications such as telephone and internet. 2. Video tape system Is a system of storing information in a ribbon that can be displayed on the screen. This system is used to record sources of information directly, the issue of Handicam. 3. Video discs Video discs are pieces that are used with laser light to store digital data such as articles and ancient texts. Video discs are very important to help preserve library materials so that information can be preserved. Examples of video discs are CD-ROM 4. Computers According to the original spelling of the computer means a calculator. The word computer comes from the Latin "Computere" which means count.

The computer is a machine that can manipulate data by itself and is used as a tool in data processing. Computers are the main base of information technology because most of information technology utilizes computers to run the process. Computers consist of hardware and software. Hardware includes: data entry equipment (Keyboard, Scanning), word processing equipment (CPU), data output display equipment (screen / monitor, printer), data storage (diskette, hard disk, CD). Software includes: number processing software, data processing software, word processing software, image processing software and multimedia presentation software. 5. Micro Form Micro form is a facility for storing information in micro form containing text, images and graphics arranged on a horizontal horizontal film. Micro form is usually used to record ancient scripts and to read it requires a special reading tool that is micro reider 6. Voice communication with the help of a computer Is a communication by utilizing a computer as an intermediary 7. Networking (Networking) A network is a system that can send and receive both data and messages via a cable. Networks allow groups of computers to be connected to one another in one location or the whole world.

8. Electronic mail Electronic mail is a method for file transfer and sending messages between workstations. Electronic mail allows a computer user to exchange messages with other users through a communication network.

9. Text video and teletext Text video is the transmission of digitally encoded information as part of a TV signal to send messages in the form of sound, images and text. While teletext is part of a video text that only sends messages in the form of text.

Abdul Kadir (2014: 15) argues that information technology in general has the following roles: "1. Information technology replaces the role of humans. In this case, information technology automates a task or process. 2. Information technology strengthens the role of humans, namely by presenting information on a task or process. 3. Information technology plays a role in restructuring human roles. In this case, technology plays a role in making changes to a set of tasks or processes. " Many companies dare to make very high investments in information technology. The most common reasons are the need to maintain and improve competitive position, reduce costs, increase flexibility and also respond. There are many companies that have implemented information technology to support various activities or activities of the company's operations. Sutarman (2009: 13) states the reasons why the application and management of information technology is an important part of: "1. Increasing complexity of management tasks; 2. The influence of the international economy (globalization); 3. The need for faster response time; 4. Pressure due to business competition. "

Benefits of Information Technology According to Abdulhak (2005: 413) there is a classification of the use of ICT into three types, namely: first, ICT as an educational media (aid) that is only as a supplement to clarify the description of the information conveyed. Second, ICT as a source that is as a source of information and seeking information. Third, ICT as a learning system. According to Bambang Warsita (2008: 150-151), in general there are three uses of information

technology or instructional computers and the internet for education and learning, are: First, Learning about computers and the internet, ie Computers can be used as objects of learning, for example computer science (computer science). Second, Learning with computers and the internet, i.e. information technology facilitates learning in accordance with the applicable curriculum in schools. For example Pustekkom, the Ministry of National Education develops interactive multimedia CD programs for subjects.

This opinion was also reinforced by Heinich in Bambang Warsita (2008: 137-144), IT is all forms of use or use of computers and the internet for learning. Forms of use / utilization of information technology, namely: 1) Tutorial, is a program in which the delivery of material is done in a tutorial, namely a concept that is presented with text, images either still or moving, and graphics; 2) Practice and training (drill and practice), which is to train students so that they have skills in a skill or strengthen the authority of a concept. This program usually provides a series of questions or questions; 3) Simulation (simulation), namely this format aims to simulate an event that has occurred or that has not and is usually associated with a risk, such as a plane going down or crashing, the occurrence of disaster and so on; 4) Experiments or experiments, this format is similar to the stimulation format, but is more aimed at experimental activities, such as practical activities in the Natural Sciences, Biology or Chemistry laboratories; 5) Game (game), which refers to the learning process and with this format multimedia program it is expected that learning activities occur while playing.

III. RESULT AND DISCUSSION

Making internet-based applications to the use of video to reduce human interaction that has the potential to spread the SARS Cov-2 virus that causes Covid19. With social media and communication applications such as Whatsapp, people can still communicate with loved ones who live in different areas. To stop the number of sufferers or the spread of the corona virus is prevention. Several airports in the world currently use thermal scanner technology to prevent corona virus. Not only that, several other technologies are also used to prevent the spread of the virus, the following reviews are summarized from various sources.

1. Thermal Scanner

Thermal scanners are installed at airports to anticipate the spread of the corona virus. This tool serves to detect a person's body temperature, when someone has a fever, it will be known by officers.

Thermal scanners can detect the heat of an object that radiates by itself. The device is also capable of recording the temperature of various objects.

2. Map Application

Chinese citizens use a map and travel search program to avoid areas affected by the corona virus infection. This application is called QuantUrban and the WeChat, YiKuang or Epidemic Situation program.

The application adopts official information in the environment where corona virus cases occur. The application maps geographically, so users can measure how close they are to the location of the infected corona virus.

3. Drone

This small unmanned aircraft or drone is used by China to spray disinfectant liquid into villages and cities affected by the corona virus.

Air devices are currently used in the coastal provinces of Jilin, Shandong and Zhejiang. By spraying disinfectants, it is expected to prevent further spread of the killer virus even though it is not yet known how effective this method is.

IV. CONCLUSION

Well-applied information technology can help spread COVID-19. Technology has played an important role in combating the corona pandemic virus (COVID-19). Corona virus or severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a virus that attacks the respiratory system. This disease caused by a viral infection is called COVID-19. Corona virus can cause disorders of the respiratory system, acute pneumonia, until death. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), better known as the Corona virus, is a new type of coronavirus that is transmitted to humans. This virus can affect anyone, both infants, children, adults, the elderly, pregnant women, and nursing mothers. Technology that can be used to prevent the spread of covid-19 such as thermal scanners, map applications, drones.

V. ACKNOWLEDGMENT

This work is supported by BINUS University

VI. REFERENCES

- [1] Azhar Susanto & Meiryani. 2018. The Influence of Business Process and Risk Management on the quality of accounting information system. *Journal of Theoretical and Applied Information Technology* 96(9), pp. 2626-2637.
- [2] Azhar Susanto & Meiryani. 2018. How user ability and top management support influence on accounting information system quality and its impact on the quality of accounting information. *Journal of Engineering and applied sciences* 13(16), pp-6645-6652.
- [3] Laudon, P. Jane Laudon, Kenneth. 2004. *Management Information Systems*. Pearson International. Oetomo, Budi Sutedjo Dharma, 2002, "Planning and Development of Information Systems", Andi Publisher.
- [4] Hall, James A. 2011. *Accounting Information System*. Sixth Edition. South Western : Cengage Learning.
- [5] Heidmann, Marcus. Schaffer, Utz & Strahringer, Susanne. 2008. Exploring the Role of Management Accounting Systems in Strategic Sensemaking. *Information Systems management*. Volume 25. Pp.244-257.
- [6] Horan T A, Abhichandani. 2016 " EGOVSAT: Toward a Robust Measure of E- Government service Satisfaction in Transportation," *International Conference on Electronic Government*, Ottawa, Canada.
- [7] Hurt, Robert L. 2008. *Accounting Information System: Basic Concept & Current Issues*. McGraw Hill.
- [8] Gelinas, Ulric J. dan Dull, Richard B.. 2012. *Accounting Information System*. International Student Edition. Thomson South Western.
- [9] Laudon, K C. & J P. Laudon. 2012. *Managemen Information System : Managing The Digital Firm*. 12th Edition. NJ: Prentice-Hall.
- [10] Kothari, C.R. 2012. *Reaseach Methodology: Methods and techniques*. Second Revised edition. New Age International Publisher.
- [11] Meiryani, Azhar Susanto, Dezie L Warganegara. 2019. The issues influencing of environmental accounting information systems: an empirical investigation of SMEs in Indonesia. *International Journal of Energy Economics and Policy* 9(1), pp. 282-290.
- [12] <https://www.portonews.com/2020/finance-and-portfolio/environment-living/ini-steps-prevention-to-virus-corona/> accessed 30 March 2020
- [13] <https://www.radioidola.com/2020/preventing-widespread-virus-corona-is-government-optimizing-use-technology/> accessed 30 march 2020

- [14] <https://techno.okezone.com/read/2020/03/17/207/2184512/peran-technology-to-prevent-spreading-virus-corona> accessed 30 March 2020
- [15] <https://republika.co.id/berita/q7i2un314/peranan-teknologi-dan-pencegahan-wabah-corona> accessed 30 march 2020
- [16] <https://www.wartaekonomi.co.id/read271049/3-teknologi-ini-bisa-prevent-preading-virus-corona> accessed 30 march 2020
- [17] <https://www.tagar.id/peng-understanding-corona-vs-covid19> accessed 30 march 2020
- [18] <https://www.suarasurabaya.net/kelanakota/2020/arti-istilah-istilah-relvid-covid-19-mulai-lockdown-sampai-social-distancing/> accessed 30 march 2020
- [19] <https://www.alodokter.com/virus-corona> accessed 30 March 2020