

## Government Website Performance during Covid-19: Comparative Study Yogyakarta and South Sulawesi, Indonesia

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**Abstract:** This paper analyzes government websites and social media accounts during COVID-19. In a crisis, the government must provide real-time information to store and share information using websites and social media. This paper compares government websites and social media during covid-19. This paper uses a qualitative analysis method with Nvivo 12 Plus and Similar-web as analytical tools to assist in capturing data and mining data from government-owned websites and social media accounts. This study explains that the use and availability of websites and social media by local governments is the government's response to ensure access and public information services can run well during a crisis. The performance of government websites is influenced by the intensity of relationships on social networks such as social media. The higher the engagement of government websites with social media, the higher the level of information dissemination in the community. The findings of this study indicate that the performance of government websites greatly influences public trust. The limitation of this research lies in the research method, which only takes data for a certain period. This research still requires further development by using an observation or interview approach.

**Keyword:** Government website; Social media; Public trust; Covid-19.

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### INTRODUCTION

Technology continues to experience developments every time and affects the pattern of human life. The government also uses the development of this technology as a service for public information access. The government's website-based information technology has created a new space that can connect the government and the community, in this case, the government as an online service provider to the public sector (Wong & Welch, 2004; Connolly, Bannister, & Kearney, 2010). The use of web-based technology is also an essential part of E-Government, demanding transparency and open interaction (Wong & Welch, 2004; Simonofski, Snoeck, & Vanderose, 2019; Baharuddin, 2020). The existence of a government website also influences the level of community participation. The quality of the websites available influences the level of involvement. The website's rate includes efficiency, ease of access, information availability, and

supporting privacy security (Connolly, Bannister, and Kearney, 2010; Sachan, Kumar, & Kumar, 2018; Csontos & Heckl, 2021). Dissemination of information via the web can be accessed via desktop, mobile, and other social networks, such as social media.

Social media has an essential role in modern social life and can even be utilized in certain situations, such as disaster situations. The use of social media in an emergency or disaster has an impact on the dissemination of information. The dissemination of this information includes information about public safety, emergency warnings and requests, and assistance distribution (Lindsay, 2011). Other essential things, such as real-time crisis mapping in disaster situations, can also be accessed using social media (Middleton, Middleton, & Modafferi, 2014; de Bruijn et al., 2019). Social media use in disaster situations also affects the evaluation, research, response, and policymaking process (Houston et al., 2015; Jurgens & Helsloot, 2018). Apart from that, the use of social media in government is also an essential part of realizing E-Government. Social media is a new form of innovation in the public sector (Criado, Sandoval-Almazan, & Gil-Garcia, 2013). Social media applications are used to increase transparency, participation, and collaboration in the public sector (DePaula, Dincelli, & Harrison, 2018; Baptista, Wilson, Galliers, & ByngHall, 2017; Pereira, Cunha, Lampoltshammer, Parycek, & Testa, 2017).

Social media is then employed to access information and communication by the general public and governments worldwide. Even the existing networking sites on social media also have an impact on the pattern of public participation in a social, political, and other general public life in the public sphere (Harlow, 2012; Choi & Cho, 2017; Boulianne, 2019; Jubba et al., 2020; Nofrima et al., 2020). It also illustrates how social media indirectly connect people with the government. With social media, the public can participate and evaluate government performance directly. Social media then triggers new potential in social life, including social and political polarization (Allcott, Braghieri, Eichmeyer, & Gentzkow, 2020). In turn, it influences social psychology, networking, information, and social mobilization (Bayer, Triêu, & Ellison, 2020).

The research results in Indonesia also prove that the impact caused by COVID-19 dramatically affects the community's socio-economic life. The impact caused by the spread of this virus includes a decrease in health services, education services, people's purchasing power, unemployment, massive layoffs, an increase in the poverty rate, and a communication crisis (Machmud et al., 2020; Cahyani, Listiana, & Larasati, 2020; Campbell et al., 2021; Prawoto, Purnomo, & Zahra, 2020; Malecki, Keating, & Safdar, 2021). Since the first case was discovered in Indonesia in March 2020, the use of information technology in the form of websites and social media has changed into an alternative that is often used in accessing and disseminating information related to the number of cases, socialization, education, policy, and health protocol (Baharuddin et al., 2021). It provides an essential argument for how the presence of social media has contributed to a pandemic situation while, at the same time, limiting social activities in public spaces. Websites and social media are then present as online networking media capable of distributing information quickly and are also utilized as a medium of communication by individuals in their social communities. The use of websites and social media to access information can also influence public reactions in the online network.

In this online network, it was also found that the public reaction to the COVID-19 pandemic situation was also mixed, such as interest in family, economic issues, and government performance to reduce the spread of the number of COVID-19 cases (Wang, Hao, & Platt, 2021; Colfer, 2020). The diffusion of information related to COVID-19 is also spread on various social media platforms, such as Twitter, Instagram, and YouTube. Social media platforms are participatory media related to public response and discourse (Cinelli et al., 2020). The community response is also a form of community participation in fighting the spread of cases in Indonesia. In this context, public attitudes are fundamental in evaluating government performance.

Recent research explained that more than 168 million people in 50 countries are expected to need humanitarian assistance by 2020. The complex humanitarian crisis is a global health challenge, including when coronavirus is a more significant threat than other cholera and Ebola cases (Enemark, 2017). Other findings also explain an increase in human rights violations during the Covid-19 period, such as what happened in Africa. Law enforcement officials continue to

increase the violation of the rights of vulnerable groups; this is related to the abuse of power by the security authorities. The implications of handling COVID-19 are expanding the distribution of cases and the emergence of a confidence crisis. Government authorities took several anticipatory steps by making, changing, and developing new policies and involving participatory communities to implement these policies actively (Henry, 2020; Weible et al., 2020).

Participatory action is essential in responding to the current pandemic. There are campaigns and movements from international organizations and NGOs. The exercise highlighted some categories that are quite vulnerable to being exposed to COVID-19, such as the elderly, health workers, people with chronic diseases, people with disabilities, homeless people, prisoners, refugees, and displaced people (Park, Cook, Lim, Sun, & Dickens, 2020). Other findings through survey results in 30 countries also show that women are at risk of secondary effects from Covid-19, in the form of gender-based violence, reduced sexual and reproductive health services, reduced livelihoods and economic opportunities, and reduced access to education (Fuhrman & Rhodes, 2020). These findings encourage women and women's rights organizations in decision-making, responsive action, and other participatory efforts (Clots-figueras, 2011).

Several other findings found that handling COVID-19 also depends on the country's political circumstances and situation, such as Iran, which is subject to unilateral sanctions by the US in the form of penalties for non-US companies doing business with Iran. Then hampered the distribution of aid in medicines, medical equipment, pharmaceuticals, and laboratory facilities (McMichael et al., 2020). Nevertheless, other findings explain that the emergence of COVID-19 cases made the political situation in several countries finally change and handle COVID-19. This is an effort to reduce political tensions so far and demand cooperation from conflicting groups to focus on addressing the pandemic problem. The most important thing is that the state's institutional, ideological, and coherence and the opposition parties play a significant role. COVID-19 also has implications for the political stability of a country. The state of emergency is implemented in a way that does not hinder democratic potential. This situation requires ongoing engagement with the opposition to solve the problem (Fakhrudin, Blanchard, & Ragupathy, 2020).

The COVID-19 pandemic does not only cause problems in certain aspects of life but also in the national security sector on a global scale. Efforts to maintain national security must be considered by maximizing the armed forces' operational capacity and the state's ability to defend itself and participate in creating security in the international arena. This pandemic is then associated with each country's armed forces with the absolute power to create national and international security; this is reasonable because the potential for the spread of COVID-19 is also targeting soldiers. Some absolute organizations of the armed forces' functions, such as in the US, changed training formats, suspended recruitment, and set up facilities (Balogun, 2020). National security is associated with protecting territorial integrity and state sovereignty and critical interests on global issues such as the COVID-19 pandemic. This situation can increase awareness about the importance of national security dimensions (Hua & Shaw, 2020; Oshewolo & Nwozor, 2020). Other problems continue to emerge, such as in the food security sector. The results show that COVID-19 can also damage food security either directly by disrupting the food system or indirectly through the impact of locking on household income and physical access to food. COVID-19 has damaged food production, marketing, and economic (Olagnier & Mogensen, 2020; Devereux, Béné, & Hoddinott, 2020). The government must improve this situation to stabilize the social-economic situation (Naidoo & Fisher, 2020; Baker, Bloom, Davis, & Terry, 2020; Mahadiansar, Wijaya, & Wanto, 2021).

Other studies assess that the role of communication technology in disasters dramatically determines the government's success in providing information for public safety and overcoming disasters. Optimizing communication in an integrated manner is essential in disaster management. A pandemic is a situation characterized by a high level of uncertainty, not only in epidemiological but also in rhetorical terms related to the effects of communication (Bourrier et al., 2019). Communication is an integral part of handling every disaster, including COVID-19, which has hit Indonesia and more than 190 other countries. The importance of communication media is needed to build public trust and prevent mass hysteria from occurring—various policies

of the Indonesian government in dealing with COVID-19 by arranging information and maintaining public communication. Communication during and after a disaster is an essential component of response and recovery. The government must ensure that the public can quickly get information about the development of COVID-19. This can help strengthen community resilience in the face of disasters and undergo a period of recovery afterward (Noor, Ayuningtyas, & Prihatiningsih, 2020; Satispi, DyasTuti, Fathani, & Kaewhanam, 2021).

Recent studies' findings explain that there is also an increase in the spread of hoax information circulating in a pandemic situation. Hoax information is spread on many social media platforms. The Ministry of Communication and Information noted the number of hoaxes related to Coronavirus information jumped from 36 content in four days to 232 per day in Indonesia (Wardanie, 2020), and fake details on the Covid-19 pandemic have sprung up in the community, not only in Indonesia but throughout the world. The spread of this false information caused anxiety and panic. Various false information circulates in public, starting from the virus's origin, spreading the virus, preventing, and treating government policies. Not only will it cause public unrest, but even false information can also lead to social conflict. This, in turn, hinders the process of preventing the spread of cases in Indonesia. Therefore, it demands social media users be wiser and alert to information distribution in a pandemic situation (Saputra, 2020).

Indonesia is the fourth most populous country globally, and it is estimated that it will still experience the impact of COVID-19 significantly for a more extended period. This situation requires mutual concern between the government, non-governmental organizations, and the general public (Djalante et al., 2020). However, many Indonesians do not comply with the government's appeal to tackle the coronavirus pandemic (Buana, 2020), so it takes an effort from the central and local governments to reduce the distribution of cases that impact many regions and sectors in Indonesia. The importance of utilizing technology and resources is also possible in accelerating the current pandemic response. The availability of information is essential to building collective participatory solidarity in the community. Such participatory replies and responses require a communication media platform so that access to information and communication can be spread more quickly and effectively. Comprehensively, this also has implications for the level of social trust and reduces the risk of conflict, hoaxes, panic, and other chaos caused by the absence of access to useful and correct information during the pandemic.

Suppose you look at the previous study above. In that case, this research's position is that of research explicitly focusing on analyzing the use of communication media and information based on official websites by the government in the COVID-19 pandemic. The government website's performance will be examined and identified by paying attention to several sectors such as performance, traffic, and engagement on other social networks. This research will look at how the government responds to providing access and information services during the pandemic period. The government's existence of access and official information services is expected to reduce panic and disinformation regarding COVID-19 information.

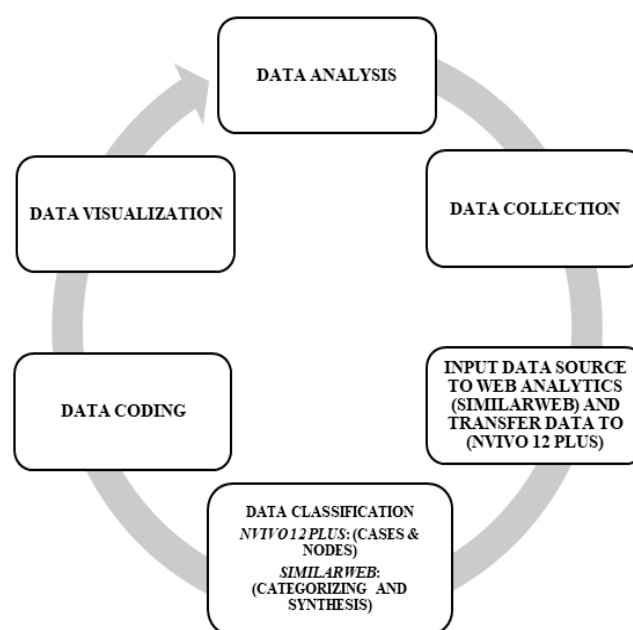
This research used two case studies, namely in Yogyakarta Special Region and South Sulawesi. The development of the number of cases in the two regions has a quite different significant trend. Based on the map of the distribution of cases per province on June 21, 2020, the direction of the spread of COVID-19 cases in the Yogyakarta Special Region was relatively smaller, namely 277 cases (0.6%). Meanwhile, the number of cases in South Sulawesi was 3,573 (8.2%) (BNPB, 2020). The first positive case of COVID-19 in the Yogyakarta Special Region (DIY) was found in a 3-year-old toddler. Yogyakarta Special Region government confirmed the case on March 15, 2020. Meanwhile, the findings of the first case in South Sulawesi were found in two people at once. The central government announced the positive case findings in South Sulawesi on March 19, 2020 (Antony & Taufiqqurahman, 2020). With this case's findings, the Yogyakarta and South Sulawesi Governments immediately coordinated with the hospital, the Health Office, and the Task Force. The following is data on the number of positive cases of COVID-19 in Yogyakarta Special Region and South Sulawesi, updated on June 21, 2020.

The case-finding made Yogyakarta Special Region and South Sulawesi governments continue to make efforts to prevent the distribution of cases. Along with the central government's direction, Yogyakarta and South Sulawesi also created a website-based

information and communication center. Besides, Yogyakarta Regional Government and South Sulawesi Government also utilized social media in disseminating information. Efforts were made to provide information and communication media so that the public could find out information in case dissemination of data, socialization, and education. This study aimed to analyze the government's ability to utilize web-based information technology and social media.

## RESEARCH METHOD

This study used a qualitative approach as a contextual study in describing a specific phenomenon, such as in the COVID-19 pandemic situation. This study's data sources came from news documents, internet sites, government websites, and social media of Twitter and Facebook. The data were then collected using the Ncapture for Nvivo feature (Kaefer, Roper, & Sinha, 2015). Data analysis was performed using Web Analytics (Similarweb) and analysis software (Nvivo 12 Plus). This research was analyzed in the period of the occurrence of the coronavirus cases distribution in Yogyakarta and South Sulawesi in March-June 2020.



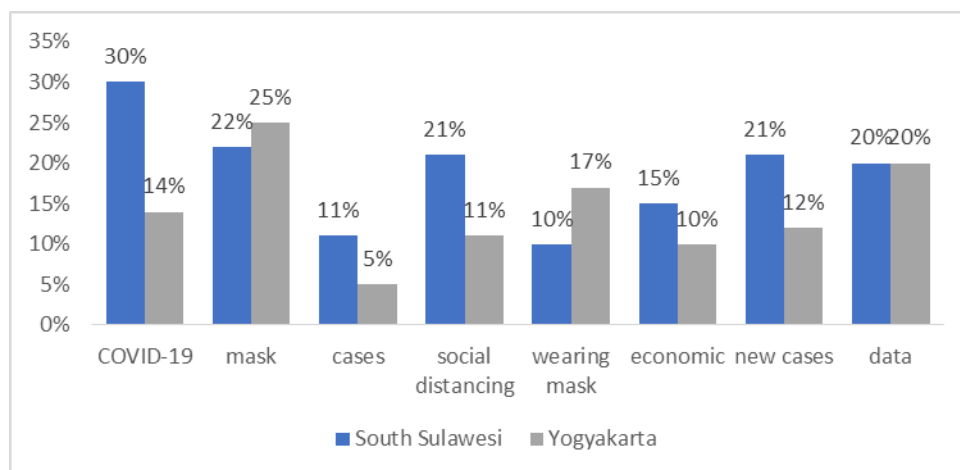
**Figure 1.** Data Analysis Process

Source: Processed by researchers using NVivo12 Plus (2020)

## RESULT AND DISCUSSIONS

### ***Performance of Government Websites: Yogyakarta Special Region and South Sulawesi***

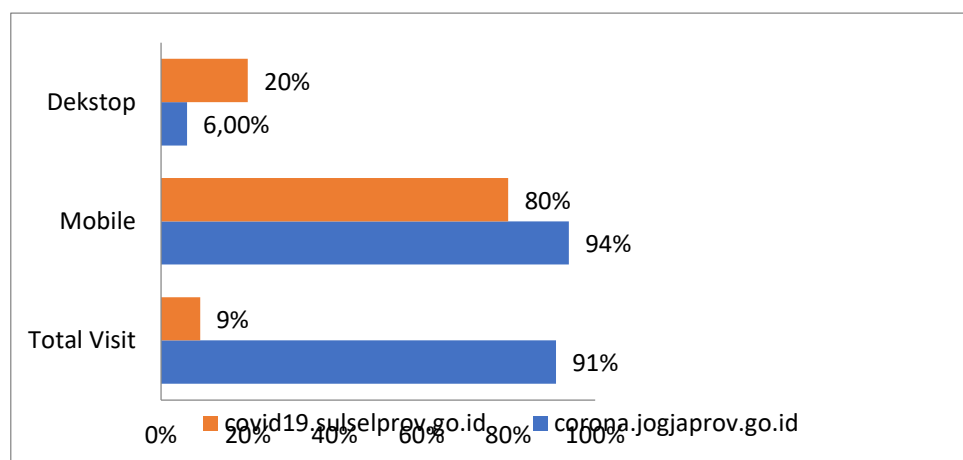
Local government websites are a means of communication to convey various information to the general public. The presence of local government websites can minimize information gaps (Masyhur, 2014). In a COVID-19 pandemic situation, access to information is needed. The general public can employ that to access news and other important information. During the pandemic, the government implemented social restrictions in public spaces, so it was crucial for the government to provide a website as a medium of information. Yogyakarta Special Region government provides an information base about COVID-19 through the website ([corona.jogjaprov.go.id](http://corona.jogjaprov.go.id)), while the South Sulawesi government through the website ([covid19.sulselprov.go.id](http://covid19.sulselprov.go.id)). The following is the information dissemination in the form of a general theme on the Yogyakarta Special Region government websites and the South Sulawesi government.



**Figure 2.** Themes on the Website (March-June 2020)

Source: Processed by researchers using NVivo12 Plus (2020)

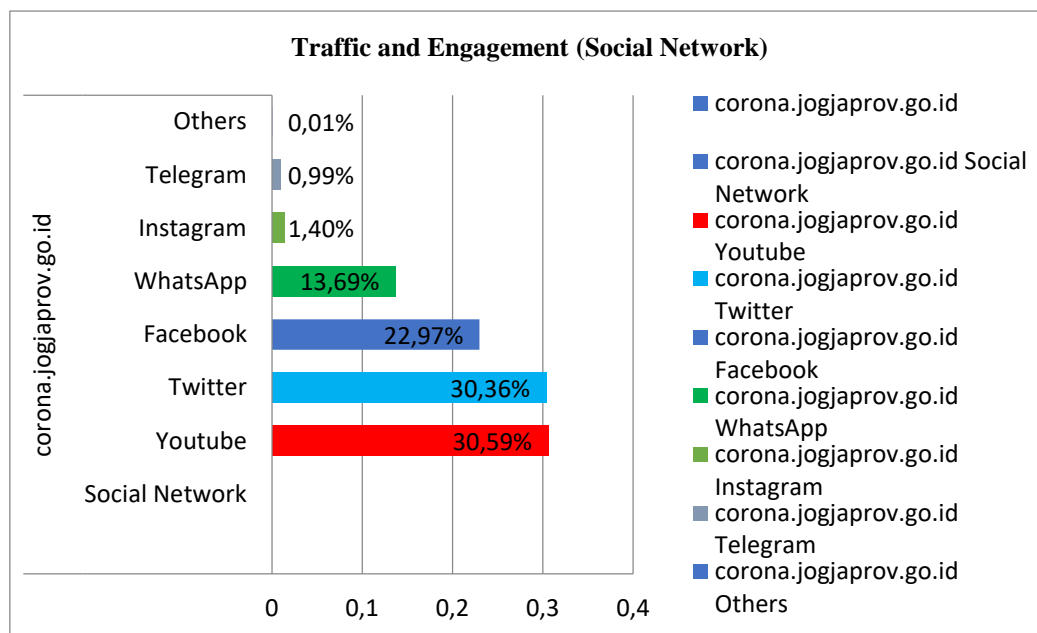
Yogyakarta and South Sulawesi governments have made various efforts to access information about COVID-19 easily. It was supported by the availability of a government website that is easily accessible at any time. The general information dissemination on the government website is information about the distribution of COVID-19 cases, data information, education about symptoms, and health protocols, such as the importance of using masks in public spaces. Ease of access to government websites can also be done via desktop devices and mobile phones. Access to this information takes advantage of available internet facilities. The data on the number of visitors to the Government of Yogyakarta Special Region and the Government of South Sulawesi is as follows.



**Figure 3.** Website Performance in March-May 2020

Source: Processed by researchers using a similar web (2020)

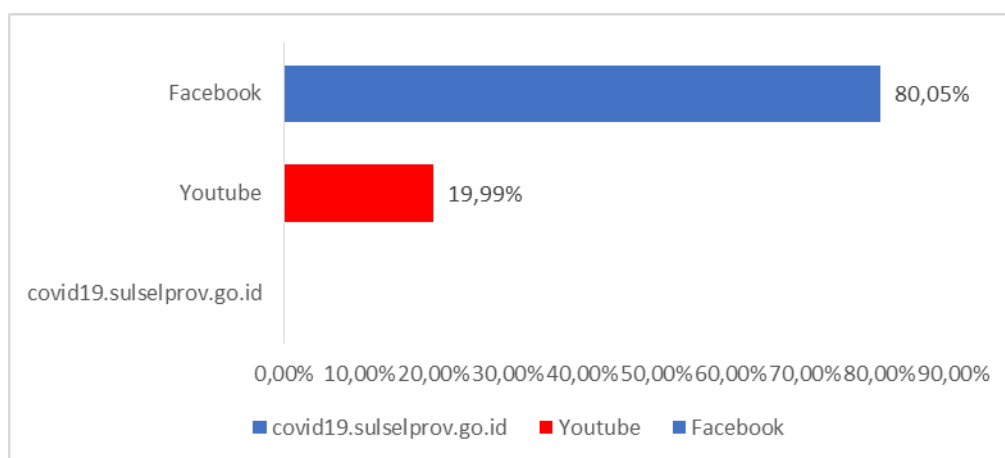
Each government website's performance above illustrates that the South Sulawesi government website had a very small visitor ratio compared to the Yogyakarta Special Region website. It indicated information gaps in the community, especially in the South Sulawesi region. This information gap resulted in dysfunction in government efforts to prevent the COVID-19 case in South Sulawesi. Meanwhile, the performance of the Yogyakarta Special Region Government website on the data above was relatively good. The following is the information dissemination data from the Yogyakarta Special Region Government website on social media network applications, in which the data were analyzed in March-May 2020.



**Figure 4.** Relationship Between Yogyakarta Special Region Government Website and Social Media

Source: Processed by researchers using a similar web (2020)

The South Sulawesi Government website also had a network on Facebook and YouTube applications. The following is the relationship between the South Sulawesi government's website and social media networks. Data were analyzed in the period March-May 2020.



**Figure 5.** Relationship between South Sulawesi Government Website and Social Media

Source: Processed by researchers using a similar web (2020)

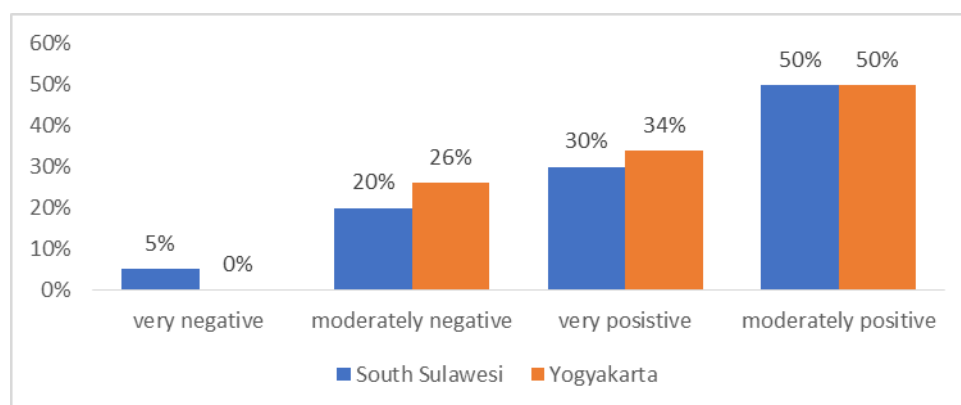
Yogyakarta Special Region Government website data in Figure 4 shows a relation or engagement in disseminating information on the website to other social networks, such as social media (YouTube, Twitter, Facebook, WhatsApp, Instagram, Telegram). The utilization of information and dissemination of information on these sites had a relatively broad distribution. It indicated that access to information on the web was easy for the public to access via desktops or mobile devices. It also suggested that the website also had the trust of the public.

Whereas the Government of South Sulawesi's website in Figure 5 had relatively little engagement with social media networks. It indicated that the public preferred to search for information dissemination from other news sites. Getting access to information outside of government authorities was not a problem. However, in this case, the government must also innovate and maximize the website that has been previously developed. If it continues, it will

affect public trust and risk disinformation. The existence of disinformation will also impact the level of community participation in supporting government plans and activities. It also directly affects the government to prevent the spread of COVID-19 cases. Thus, it should be noted that government websites can build an information network with social media. It requires government efforts to disseminate information widely and engage with social media users. The dissemination of information from government websites to social media is expected to influence future website performance.

### **Government Social Networks: COVID-19 Information on Social Media Twitter and Facebook**

Social media is a social network widely used by its users to access information. The government also employed social media by creating official accounts for public information services. The government's official account on social media affected public confidence in the dissemination of information on social media. This official account's existence was also an effort to minimize the spread of hoaxes or false news. Then, social media were also widely utilized to respond to government performance. In the COVID-19 situation in Yogyakarta Special Region and South Sulawesi, people were also looking for information related to COVID-19 by using keywords in the form of Corona and COVID-19. Moreover, the public also accessed the availability of information from government social media accounts, such as the Yogyakarta Special Region and South Sulawesi (Makassar) Information and Communication Office. The following is the public sentiment on Twitter social media regarding COVID-19 information in Yogyakarta Special Region and South Sulawesi.



**Figure 6.** Public Sentiment Regarding COVID-19 Information in Yogyakarta Special Region and South Sulawesi (Twitter)

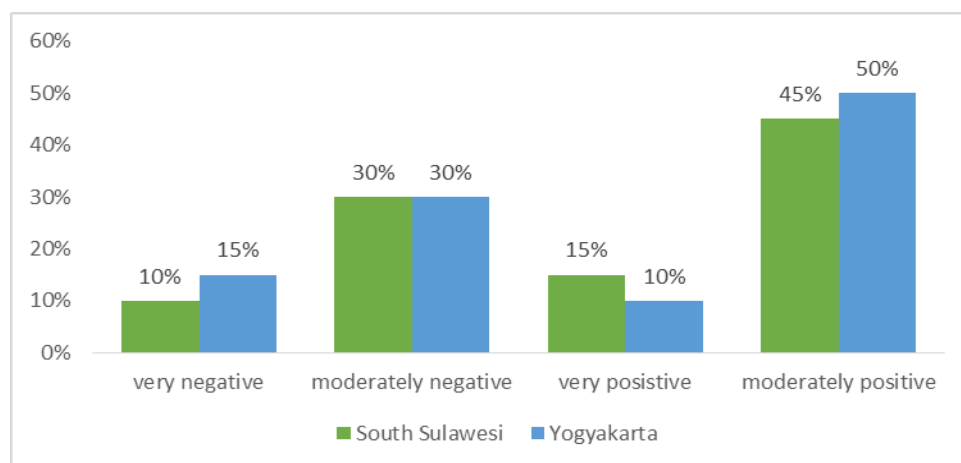
*Source: Processed by researchers using NVivo12 Plus (2020)*

Twitter is one of the popular social media used today. Its users use Twitter as a medium of communication and information. On Twitter, the public is free to write and comment on anything, and it is not uncommon for these public comments to be critical of the government. The government also uses Twitter to spread information directly to the public. This information is the government's effort to participate and prevent the spread of the COVID-19 case. One of the social media accounts utilized by the Yogyakarta Special Region government is the DIY Communication and Information Agency (@KominfoDIY). Meanwhile, the South Sulawesi government account, in this case, the Communication and Informatics Office, was not found on Twitter.

The COVID-19 information dissemination media in South Sulawesi can be accessed through other news accounts, such as online news accounts, Makassar City Communication and Information Agency, and the governor's account. It also indicated that the South Sulawesi government had not maximized social media Twitter as a medium of information. It is an important note for the South Sulawesi government in the future through the Communication and Informatics Office. The data in (figure 6) above also showed that the information spread on Twitter in Yogyakarta and South Sulawesi still received negative responses. It was influenced by information spread on social media, such as the number of cases, violations, discipline, social



assistance, and policy implementation during the pandemic. Apart from using Twitter, the Facebook application is also one of the centers for distributing information related to COVID-19. The following is data on public sentiment on Facebook regarding COVID-19 information in the Yogyakarta Special Region and South Sulawesi.



**Figure 7.** Public Sentiment Regarding COVID-19 Information in Yogyakarta Special Region and South Sulawesi (Facebook)

Source: Processed by researchers using NVivo12 Plus (2020)

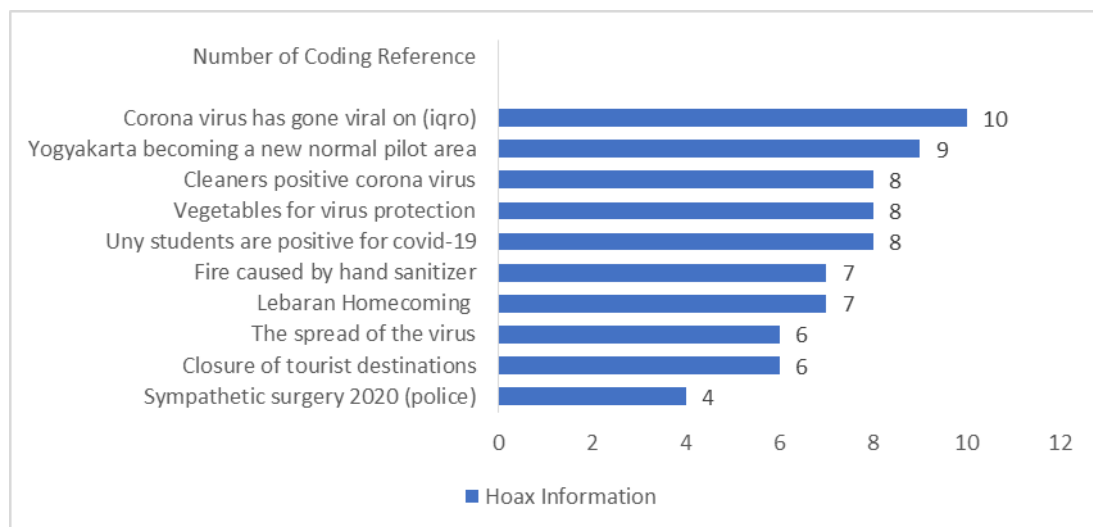
The data found were also not much different from the data on Twitter. Yogyakarta Government disseminated information using official government accounts through the DIY Communication and Information Office (@KominfoDIY). Meanwhile, searching for the official version of South Sulawesi's government (Kominfo) was also not found on the Facebook application. It also affected South Sulawesi people, in general, to access official information about COVID-19 through other accounts or news portals, the official version of Makassar City, and official statements of government officials such as the governor. It is also a severe concern for the South Sulawesi Provincial Government through the Provincial Communication and Informatics Office to maximize information facilities and services through Facebook social media. Figure 7 also presented that information spread on Facebook still received a negative response. It was influenced by information spread on social media, such as the number of cases, violations, discipline, social assistance, and policy implementation.

### **Impact of Using Website as a COVID-19 Information Service**

The Yogyakarta and South Sulawesi governments' response since the first positive case was found was by confirming the information to the public. The government's role in accessing public information is needed to reduce panic, anxiety, and disinformation in society. Therefore, to anticipate this, the Yogyakarta and South Sulawesi governments also utilized web-based information and communication technology as the official center for details about COVID-19. The Yogyakarta Special Region government uses the [corona.jogjaprov.go.id](http://corona.jogjaprov.go.id) web, and the South Sulawesi government is through the [covid19.sulselprov.go.id](http://covid19.sulselprov.go.id) website. The website provides information services in the form of socialization, education, and call centers. Another feature published on the website is the Global Positioning System (GPS), where the public can monitor a map or the location of the COVID-19 cases around them. GPS-based searches were accumulated according to the radius range chosen by the user.

The website also provides other features, such as the Hoax Buster, which functions as a means of detecting hoaxes or false information ([covid19.go.id](http://covid19.go.id)). The Hoax Buster feature's existence is one of the local governments' responses to anticipating the dissemination of hoax information. It is also based on the fact that people in a pandemic need accurate, fast, and reliable information. Since the first case was found, there have also been many hoaxes or fake news spreading that impacted disinformation in society. The following is data on disseminating inaccurate information or hoaxes clarified by the Yogyakarta and South Sulawesi regional

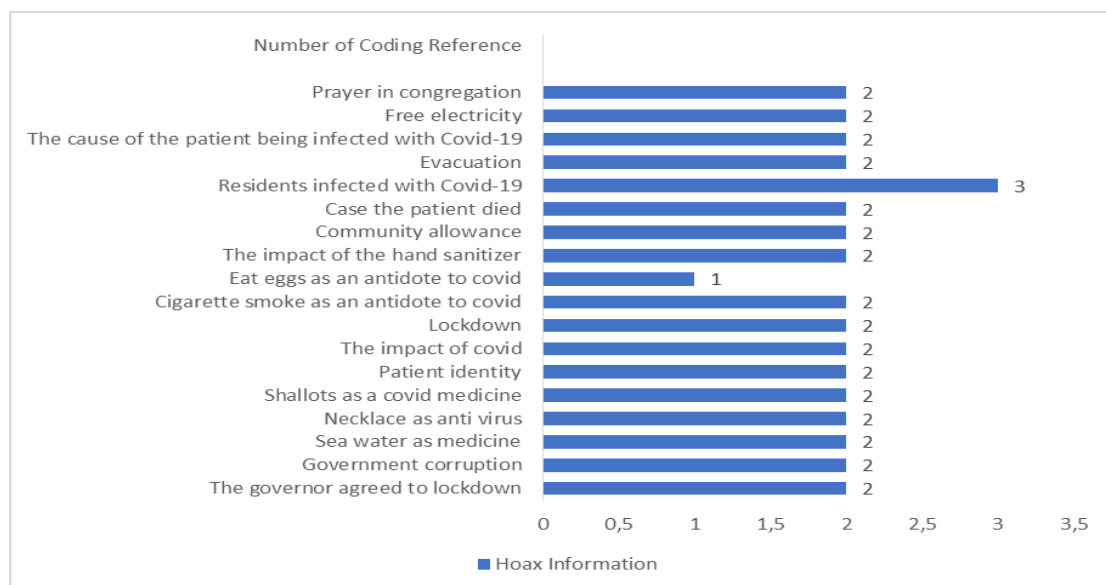
governments from March-June 2020 using the Hoax Buster feature via the corona.jogjaprov.go.id and covid19.sulselprov.go.id websites.



**Figure 8.** Performance of Yogyakarta Special Region Government Website on Hoax Information Spread

Source: Processed by researchers using NVivo12 Plus (2020)

As for the spread of hoax information in South Sulawesi people, the government clarified the website provided.



**Figure 9.** South Sulawesi Government Website Performance Over Hoax Information Spread

Source: Processed by researchers using NVivo12 Plus (2020)

The spread of hoaxes or false information circulated in the community has resulted in several problems, such as panic, misinformation, and hindering the government's handling of the COVID-19 case. The website's existence as a public information media has made the Yogyakarta and the South Sulawesi government also respond and clarify regarding the spread of hoax news through the website that has been provided. The Yogyakarta Regional Government and the South Sulawesi Government's response to the spread of hoax information circulating in the community is a form of public information services during the COVID-19 period. In addition to ensuring public information services, the Yogyakarta Special Region and the South Sulawesi government also continue to socialize, limit activities in public spaces, and provide hospital

services. The regional government and the central government also continue to coordinate in an integrated manner.

## CONCLUSION

The findings of this study indicate that the performance of government websites greatly impacts public trust. The use of websites and social media by local governments is a positive response to increase the interaction network between the government and the community and minimize hoax information and public distrust during the pandemic period. The use of information and communication technology is also an effort to support transparency and ensure public information services are maintained. The availability of this information service also has implications for the level of public participation in fighting the spread of covid-19 cases. However, this study found several problems with website performance by the government, namely the lack of relationship between the website and other social media. One of the inhibiting aspects is the absence of official government social media accounts (Twitter and Facebook), in this case, the Department of Communication and Information Technology in South Sulawesi Province. Meanwhile, the use of websites and social media in Yogyakarta Yogyakarta is relatively better.

The substance of this study contributes in the form of recommendations to maximize the use of websites and social media (official accounts) by local governments in maximizing services and access to public information. Good service and access to public information is a form of implementing E-Government. The limitation of this study lies in the research method, which only takes data for a certain period. Therefore, further research is necessary to explore other data by determining a longer period. This study also suggests that further research development is carried out utilizing an observation or interview approach in subsequent research.

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