Regional Head Communication Patterns on Social Media in Handling the Covid-19 Pandemic

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Abstract. In crisis situations such as the Covid-19 pandemic, the government and politicians continue to strive to maintain direct communication with the public. Social media is one of the effective communication channels in the Covid-19 pandemic time. This study seeks to see the influence of regional head's communication model on social media in handling the Covid-19 Pandemic. In addition, this research is a qualitative research using literature study and social media analysis. In this study, the authors used the NVivo 12 Plus software as an analysis tool. In addition, this article will focus on four regional heads in Indonesia; they are the Governor of DKI Jakarta, the Governor of Central Java, the Governor of East Java, and the Governor of West Java. The result of the research shows that the accounts of regional heads still tend to be in the first spectrum, which is informing the public. Accounts belonging to Anies Basweda and Khofifah Indar still dominate the spectrum of information. However, the accounts belonging to Ganjar Pranowo and Ridwan Kamil have better percentage on the other spectrum. The communication model used on social media by regional heads tends to be one-way communication, but Ridwan Kamil's account also uses two-way and deliberative communication. This has affected the handling of Covid-19 in West Java which is slowly subsiding. In addition, the communication that Ridwan Kamil built on social media has an effect on the handling of Covid-19 in West Java, considering that social media is one of the most ideal communication channels during the Covid-19 pandemic. This means that the use of a two-way and deliberative communication model as well as intense communication by regional heads on social media will affect the handling of Covid-19, because it allows regional heads to attract participation and absorb the aspirations of the community through social media.

1. Introduction

2019 Corona Virus Disease or Covid-19, is a disease caused by the SARS-Cov-2 virus which appeared in Wuhan City, Hubei Province, China in December 2019 and has now spread throughout the world. This case has been found in many countries such as Iran, Italy, Japan and South Korea [1].
The first case of Covid-19 in Indonesia was confirmed on March 2, 2020, when President Joko Widodo announced that two women, a mother and child status, were confirmed positive for Covid-19. As of April 2, the country has reached 1,790 confirmed cases, 113 new cases, 170 deaths and 112 recoveries [2]. The President also formed a Task Force for the Acceleration of Covid-19 Handling. The task force coordinates central and local governments’ resources to ensure that efforts are made to avoid the emergence of new clusters [3]. In addition, some areas are prioritized and declared as red zones by the Indonesian government, and a Large-Scale Social Restriction (PSBB) policy is implemented with the aim to stop the spread of Covid-19 [4].

In crisis situations, such as the Covid-19 pandemic, the government and politicians continue to strive to maintain direct communication with the community [5]. Social media is one of the most effective communication channels for communication in the Covid-19 pandemic time [6] which required limited face-to-face meetings. Thus, communication between the government and the public on social media will provide another perspective on policy, especially in the situation of the Covid-19 pandemic crisis [7]. Furthermore, several studies stated that social media is used as a means of communication and government coordination. Research conducted by Salahudin et al., (2020) states that government officials, both President Jokowi and governors, communicate and coordinate on Twitter social media discussing the handling of Covid-19. Communication and coordination of Covid-19 handling is focused on the theme of Covid handling, which are the appeal and direction of the central government to unite against Coronavirus, recognize and understand Covid-19, comply with central government policies, pay attention to the interests of the state, and care for Indonesia [8]. In addition, social media is also used by humanitarian volunteers to provoke their preparedness in monitoring risks and disasters [9].

Social media also helps users to communicate the severity of damage caused by a disaster or critical situation, discussing rationally what really happened, and why and who is responsible. In addition, social media is also used as a means to criticize government policies related to natural disaster management and to express emotions of the deep sadness over the loss of lives [10]. Furthermore, concerned community members outside the affected areas can track incidents from around the world using social media, enabling groups of concerned citizens to assist in response, relief and recovery efforts [11]. Social media has empowered the active involvement of various stakeholders in crisis management and enabled and facilitated their synergy and coordinated action [12]. Social media, during crises and emergencies, can inform and motivate the public that may be overlooked in current emergency response practices.

Therefore, governments have a good chance of maximizing their social media efforts and have used social media significantly during the crisis [7]. This article will try to explore how communication patterns and content provided by the government on social media affect the Covid-19 pandemic policy. In addition, this article will focus on four regional heads in Indonesia, namely the Governor of DKI Jakarta, the Governor of Central Java, the Governor of East Java, and the Governor of West Java. The reason the author focuses on the four regional heads is because they are leading the four provinces with the most Internet users in Indonesia [13], besides, the four regional heads are also active on social media.

2. Method

This research is qualitative research using literature study and Twitter social media analysis using NVivo 12 Plus software. Primary data were obtained from the personal accounts of the four regional heads. Besides, the author also used data from covid19.go.id as complementary data in this study. The stages in this study began with accessing the accounts of the four regional heads and then captured using the NCapture software. The next step was for the researchers to import data into the NVivo 12
Plus software. The fourth stage is that the author performed manual coding of the content captured by the software. The coding was done based on the researchers' understanding and had been adjusted based on the characteristics stated in the theory used. Furthermore, the author used the NVivo 12 Plus software to analyze the data that had been coded by utilizing the Crosstab Query feature.

3. Basic Theory

3.1. Artificial Intelligence and Social Media as a Communication Technology

AI communication technology is designed as something people use to exchange messages, a deviation from the historical role of media which was developed as a means by which people communicate with each other [14], moreover communication is fundamental to AI theory and practice [15]. This also applies to communication technologies currently available including social media whose methodological perspectives and domains have direct relevance to the AI subfield [16]. This is reflected in several studies that combine the two in public services, for example, a research titled “Humanitarian Health Computing using Artificial Intelligence and Social Media” states that AI and social media provide quick access to information about victims and health care facilities can help reduce suffering and rebuild community. However, there is a lack of large-scale adoption and technology-based pilot studies with a focus on human factor evaluation. This proves that AI and social media are technology that can be used as a means of communication in the public sector [17].

3.2. Media Social as an Alternative Communication in Crisis Situations

Social media contributes to overcoming social challenges and influencing social changes that are of public concern, such as natural disasters [18]. As stated in the American Red Cross research on the use of social media carried out in 2010 [19], this suggests that 24% of the US population and 31% of the online population will use the media to tell family and friends that they are safe. This reflects the usefulness of social media and a reasonable lack of trust in communication tools such as direct telephone calls, which are subject to network saturation. Floods in Queensland, Australia, also led to extensive use of social media for public interaction and communication, but not for the mass dissemination of false information [20]. Furthermore, during the 2009 influenza pandemic, within minutes, the Health Department tweeted and texted about where the H1N1 influenza vaccine was available and people flocked to the vaccination sites [21]. Obviously, social media changes the way people communicate not only in everyday life, but also during disasters that threaten public health. Engaging with and using emerging social media can put the emergency management community, including medical and public health professionals, in a better position to respond to disasters [21].

Furthermore, there are several modes of communication that can be used by the government as an alternative means of communication, namely one-way, two-way, and deliberation modes [22]. In addition, there are five continuum frameworks for public participation, a typology that is sometimes used to describe joint decision-making authority. The mechanisms that inform the public are at the first stage of the continuum; the second level is consultation; the third level a process involving the public; the fourth level is the process of collaboration with the public; and at the fifth level, there is a process that empowers the public[22], [23].

4. Finding and Discussion

4.1. Regional Head Communication in Handling Covid-19

Based on the results of coding using the Nvivo 12 Plus accounts for the four regional heads during this pandemic, table 1 shows the communication spectrum based on the content of the four regional heads. The accounts of regional heads still tend to be in the first spectrum, namely informing the
public. Accounts belonging to Anies Baswedan and Khofifah Indar still dominate the spectrum of information, reaching 76.50% for Anies Baswedan and 84.75% for Khofifah Indar. Meanwhile, Ridwan Kamil's account reached 28.50% of Ganjar Pranowo's account funds at 39%. This indicates that regional heads in using social media in overcoming the Covid-19 pandemic are still up to providing knowledge and understanding regarding options, opportunities, and solutions [22].

Table. 1. Communication Spectrum of Regional Head in Social Media in Handling Covid-19

Source: Crosstab Analysis of Regional Heads' Official Twitter Contents by NVivo 12 Plus

| Spektrum  | Ganjar Pranowo | Anies Baswedan | Ridwan Kamil | Khofifah Indar |
|-----------|----------------|----------------|--------------|----------------|
| Collaborate          | 20%            | 2,25%           | 25%          | 0,75%          |
| Consult             | 12,50%         | 3,50%           | 11,75%       | 0,75%          |
| Empower             | 12%            | 7,75%           | 9%           | 4,25%          |
| Inform              | 39%            | 76,50%          | 28,50%       | 84,75%         |
| Involve             | 16,25%         | 10%             | 25,75%       | 9,50%          |

However, this confirms that social media is optimally used as a medium of information, where people can get the information they need. In addition, if you look at the content of the four regional heads during the Covid-19 pandemic, there are several similarities, including the four accounts of the regional heads that are very intense about retweeting the content belonging to the accounts of agencies that are responsible for handling Covid-19 such as @KemenkesRI and @BNPB_Indonesia. This is also a reflection of the synergy of the local government and the central government in overcoming the Covid-19 pandemic. The further similarities are that the four accounts of the regional heads in general contain an appeal to the wider community to always follow the health protocols determined by the central government in order to jointly fight the coronavirus and support the hard work of medical personnel.

The next spectrum is Consult, wherein this spectrum regional heads listen to and recognize concerns, aspirations, and provide feedback on how decisions are influenced by public input. However, none of the percentages for this second spectrum reached 15%. However, the “Involve” spectrum has a fairly high percentage compared to several other spectrums, such as the Ganjar Pranowo account getting a percentage of 16.25% and Ridwan Kamil's account getting a percentage of 25.75. In this communication spectrum, regional heads engage in direct communication with the public during the process to ensure consistent understanding and consideration of public concerns and aspirations. Another Spectrum is Collaborate, only accounts belonging to Ganjar Pranowo and Ridwan Kamil reach a percentage of up to 20%, while accounts owned by Anies Baswedan and Khofifah Indar do not reach 5%. The last spectrum is Empower where the regional heads put the final decision in the hands of the public, but only Ganjar Pranowo's account is able to pass 10%, the rest does not reach that percentage.

The author argues that ideally, all regional heads should be able to maximize the spectrum of other communications. With government social media is not only used for various information. The regional heads should have a better understanding of the needs, problems, views, desires, and concerns of people related to certain areas of government operations or public policies [24]. So that it will create reciprocal communication, which has an impact on public participation [25].
Furthermore, Table.2 shows how regional heads communicate on social media. In general, the communication model of regional heads on social media is more dominated by one-way communication. However, the accounts belonging to Ganjar Pranowo and Ridwan Kamil have a better two-way and deliberative communication percentage compared to accounts belonging to Anies Baswedan and Khofifah Indar. This is because the content in the four accounts of regional heads is dominated by the first spectrum, namely, inform. Spectrum inform does not allow for feedback from the public. Especially in handling Covid-19, regional heads must maximize the use of social media as an alternative means of communication to the public. There is no traditional method that can provide real-time insight into emergency management, so it requires improvisation in communication via social media [26].

**Table. 2 Communication Models of Regional Head in Social Media in Handling Covid-19**

| Communications Models | Ganjar Pranowo | Anies Baswedan | Ridwan Kamil | Khofifah Indar |
|-----------------------|----------------|----------------|--------------|----------------|
| One Way               | 67,00%         | 89,75%         | 58,00%       | 87,75%         |
| Two-Ways              | 24,25%         | 6,25%          | 30,25%       | 9,00%          |
| Deliberative          | 8,75%          | 4%             | 11,75%       | 3,25%          |

This is in line with the data obtained, in areas where communication on social media is not dominated by the information spectrum and maximizes the two-way and deliberative communication model, has a trend that the Covid-19 case does not increase significantly and tends to be controlled. Ridwan Kamil's account, for example, two-way and deliberative communication, has a percentage difference that is not far from one-way communication. This affected the handling of Covid-19 in West Java, which was previously the province with the fastest spread of Covid-19 after DKI Jakarta but slowly subsided. The author argues that this is influenced by the communication that Ridwan Kamil built on social media, considering that social media is one of the ideal communications during the Covid-19 pandemic [5]. In addition, this can be seen in the communication spectrum built on social media. Ridwan Kamil does not only focus on one spectrum alone, like other regional heads who only focus on the spectrum of informants. Because to generate participation usually uses two-way communication, although some may use deliberative communication [23].

Polarization and rhetoric can hinder a successful response to a public health emergency where reliable knowledge and rapid behavior change can save lives [27]. Therefore, by communicating intensely on social media, it allows regional heads to influence the social behavior of the community. One of the most important and effective interventions in the public health response to any event is proactively communicating what is known, what is not known, and what is being done to elicit more information, with the aim of saving lives and minimizing adverse consequences [28]. Two-way and deliberative communication allows regional heads to be able to provoke participation and aspirations from the community [22]. In addition, risk communication must be based on a good understanding of the factors underlying risk perception, risk attitudes, and trust in communicating authorities [29].

Furthermore, the ability of the community to move effectively in response to crisis situations depends on the communication that is built, handling Covid-19 is very dependent on the leadership of the regional head [27]. By involving the community and providing social media content related to the desires of the community in the Covid-19 situation, it will build communication lines between the government and the community. Therefore communication must produce reliable and relevant information during an emergency to inform people about risks, influence behavior change, and encourage participation in decision making about emergency action [29].
Failure to communicate properly leads to loss of trust and reputation, economic impact, the worst-case risk for loss of life [28]. When the regional lockdown policy or PSBB was revamped virtual space, digital media, and mass media took an unprecedented place. This is not only a means of disseminating information but also has the potential to be the only possibility left for social interaction to take place. One of the most important and successful strategies in responding to any incident in public health is to proactively communicate what is known, what is not known, and what is being done to get more information, with the aim of saving lives and reducing the negative effects of the pandemic. Covid-19 [28]. This indicates that the urgency of political leaders, in this case, regional heads, must develop a consensus with the community that is consistent with public health recommendations if they intend to effectively respond to the COVID-19 pandemic [27].

5. Conclusion

The accounts of the regional heads tend to be in the first spectrum, which is information for the public. Accounts belonging to Anies Baswedan and Khofifah Indar still dominate the spectrum of information. However, the accounts belonging to Ganjar Pranowo and Ridwan Kamil have better percentage on the other spectrum. The communication model used on social media by these regional heads tends to use one-way communication. However, Ridwan Kamil's account also uses two-way and deliberative communication model. The social media contents presented by Ridwan Kamil are not only focused on the communication spectrum, but also maximizing the spectrum of other communications.

This has affected the handling process of Covid-19 in West Java which is slowly subsiding. In addition, the communication that Ridwan Kamil built on social media has an effect on the handling of Covid-19 in West Java, considering that social media is one of the most ideal communications during the Covid-19 pandemic time. Therefore, through intense communication on social media, it allows regional heads to influence the social behaviour of the community. One of the most important and effective interventions in the public health response to any event is to proactively communicate what is known, what is not known, and what is being done to get more information, with the aim of saving lives and minimizing adverse consequences. This means that the use of two-way and deliberative communication model as well as intense communication by the regional heads on social media will affect the Covid-19 handling because it allows regional heads to attract participation and absorb the aspirations from the community through social media.

References

[1] Z. Qodir, G. N. Effendi, H. Jubba, and A. Nurmandi, “COVID-19 AND CHAOS IN INDONESIA SOCIAL-POLITICAL,” Talent Dev. Excell., vol. 12, no. 1, pp. 4629–4642, 2020.
[2] R. Djalante et al., “Review and analysis of current responses to COVID-19 in Indonesia: Period of January to March 2020,” Prog. Disaster Sci., vol. 6, p. 100091, 2020.
[3] S. H. Thorik, “Efektivitas Pembatasan Sosial Berskala Besar Di Indonesia Dalam Penanggulangan Pandemi Covid-19,” J. Adalah Bul. Huk. dan Keadilan, vol. 4 No. 1, pp. 115–120, 2020.
[4] R. T. Handayanto and H. Herlawati, “Efektifitas Pembatasan Sosial Berskala Besar (PSBB) di Kota Bekasi Dalam Mengatasi COVID-19 dengan Model Susceptible-Infected-Recovered (SIR),” J. Kaji. Ilm., vol. 20, no. 2, pp. 119–124, 2020.
[5] L. Teichmann et al., “Public Health Communication and Engagement on Social Media during the COVID-19 Pandemic,” 2020.
[6] C. H. Basch, G. C. Hillyer, Z. C. Meleo-erwin, C. Jaime, and J. Mohlman, “Educating the Public About Reducing Exposure to SARS-CoV-2: Preventive Behaviors Conveyed on YouTube to Mitigate Transmission of COVID-19 Table of Contents,” JMIR Public Heal.
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[7] M. Cinelli et al., “The COVID-19 Social Media Infodemic,” pp. 1–18, 2020.
[8] S. Salahudin, A. Nurmandi, and T. Sulistyaningsih, “Analysis of Government Official Twitters during Covid-19 Crisis in Indonesia Analysis of Government Official Twitters during Covid-19 Crisis in Indonesia,” Talent Dev. Excell., vol. 12, no. 1, pp. 3899–3915, 2020.
[9] S. Anson, H. Watson, K. Wadhwa, and K. Metz, “Analysing social media data for disaster preparedness: Understanding the opportunities and barriers faced by humanitarian actors,” Int. J. Disaster Risk Reduct., vol. 21, pp. 131–139, 2017.
[10] Y. Al-saggaf and P. Simmons, “Technological Forecasting & Social Change Social media in Saudi Arabia : Exploring its use during two natural disasters,” Technol. Forecast. Soc. Chang., 2014.
[11] C. Reuter, A. L. Hughes, M. Kaufhold, and C. Reuter, “Social Media in Crisis Management : An Evaluation and Analysis of Crisis Informatics Research Social Media in Crisis Management : An Evaluation and Analysis of Crisis Informatics,” Int. J. Human–Computer Interact., vol. 00, no. 00, pp. 1–15, 2018.
[12] M. Sigala, “Social Media and Crisis Management in Tourism : Applications and Implications for Research,” Inf. Technol. Tour., vol. 13, no. November, pp. 1–15, 2015.
[13] Asosiasi Penyelenggara Jasa Internet Indonesia, “Laporan survei internet apjii 2019 – 2020,” Jakarta, 2020.
[14] D. J. Gunkel, The machine question: Critical perspectives on AI, robots, and ethics. 2012.
[15] D. Gunkel, “Communication and artificial intelligence: new and opportunities and challenges for communication research,” Galáxia (São Paulo), vol. 1, no. 34, pp. 5–19, 2017.
[16] M. Harrysson et al., “Social Media Analytics and Intelligence,” Journalism, vol. 6, no. 2, pp. 994–1014, 2012.
[17] L. Fernandez-Luque and M. Imran, “Humanitarian health computing using artificial intelligence and social media: A narrative literature review,” Int. J. Med. Inform., vol. 114, no. January, pp. 136–142, 2018.
[18] C. Leong and M. Ling, “ICT-Enabled Community Empowerment in Crisis Response : Social Media in Journal of the Association for Information Systems ICT-Enabled Community Empowerment in Crisis Response : Social Media in Thailand Flooding 2011,” J. Assoc. Inf. Syst., vol. 16, no. 3, pp. 174–212, 2015.
[19] H. Blanchard et al., “The case for integrating crisis response with social media,” White Pap. Am. Red Cross, vol. 32, 2012.
[20] D. Bird, M. Ling, and K. Haynes, “Flooding Facebook-the use of social media during the Queensland and Victorian floods,” Aust. J. Emerg. Manag., vol. 27, no. 1, p. 27, 2012.
[21] Merchant, R. M. S. Elmer, and N. Lurie, “Integrating Social Media into Emergency-Preparedness Efforts,” N. Engl. J. Med., vol. 365, no. 4, pp. 289–291, 2011.
[22] T. Nabatchi, “Putting the ‘Public’ Back in Public Values Research: Designing Participation to Identify and Respond to Values,” Public Adm. Rev., vol. 72, no. 5, pp. 699–708, 2012.
[23] G. Lee and Y. Hoon, “An Open Government Maturity Model for social media-based public engagement,” Gov. Inf. Q., vol. 29, no. 4, pp. 492–503, 2012.
[24] Y. Charalabidis, E. N. Loukis, A. Androutsopoulou, V. Karkaletsis, and A. Triantafillou, “Passive crowdsourcing in government using social media,” Transform. Gov. People, Process Policy, vol. 8, no. 2, pp. 283–308, 2014.
[25] A. Clarke, “The vestiges and vanguards of policy design in a digital context,” vol. 60, no. 4, pp. 476–497, 2017.
[26] A. L. Kavanaugh et al., “Social media use by government : From the routine to the critical,” Gov. Inf. Q., vol. 29, no. 4, pp. 480–491, 2012.
[27] J. Green, J. Edgerton, D. Naftel, K. Shoub, and S. J. Cranmer, “Elusive consensus : Polarization in elite communication on the COVID-19 pandemic,” no. July, pp. 1–6, 2020.
[28] The World Health Organisation, “Risk communication and community engagement readiness
and initial response for novel coronaviruses (nCoV),” *Who*, no. January, pp. 1–3, 2020.

[29] A. Lohiniva, J. Sane, K. Sibenberg, T. Puimalainen, and M. Salminen, “Understanding coronavirus disease (COVID-19) risk perceptions among the public to enhance risk communication efforts: a practical approach for,” *Rapid Commun.*, no. February, pp. 3–6, 2020.