

Developing e-government policy through social media platform in Makassar city, Indonesia

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Abstract

Social media as a tools of e-government implementation, several of studied show that by using social media is significantly able to change the interaction between the government and citizens. The interaction increase administrative transparency and encourage citizens to collaborate in development agenda setting, facilitate mobilization for strengthening public policies, and facilitate public services produced jointly between citizens and the government. The citizens have ownership and to participate in maintaining the government policies. This study aims to describe the policy of the government in Makassar City, and development of e-government using social media which is based on the weak phenomenon of e-government development in Makassar City, particularly with the smart city plan since 2014. The method used is an assessment of the use of official social media platforms and e-government development policies in Makassar City. The research locus is the Makassar City Communication and Information Office, which is the center for disseminating official information of the Makassar City Government. The results showed that the development of e-government in Makassar City is still very limited, in terms of regulation there is no support for institutional strengthening of e-government, no e-government master plan as an implementation guideline and no e-government application system blue print, as a basis or standard for application development to achieve an integrated platform.

Keyword: policy, e-government, social media, public participation, smart city

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Introduction

The rapid development of information and communication technology (ICT) has recently encouraged the implementation of information openness (Adesida, 2001; Donnellan et al., 2011; Grace et al., 2004), This requires the government to be open to people's needs for the information they seek. ICT caused the government sector to experience a revolution, shifting the conventional work system to the development of electronic-based governance or commonly called E-Government. E-Government is intended to accelerate the service process such as providing population data, licensing processes, delivering public policy information to the public, and other matters. With the provision of these facilities, it is hoped that information disclosure will be created that will encourage public participation in government administration. The positive impact with the implementation of e-government is the improvement of public service performance (Mensah, 2020). Government services that are bureaucratic and seem slow can be eliminated. E-government can also reduce the budget which results will be more efficient both in terms of cost and time.

According to UNPACS, regarding the assessment of the United Nations Public Administration Network (UNPAN) on the implementation of e-government at the global level, Indonesia ranked 116 out of 193 countries assessed. Indonesia's condition is far below other Southeast Asian countries such as Singapore (4), Malaysia (60), the Philippines (71) and Brunei Darussalam (83). Even though the government has developed various strategies for implementing e-government through Presidential Instruction No. 3 of 2003 concerning National Policies and Strategies for E-Government Development, including: 1) developing a reliable, reliable and affordable service system for the wider community with equitable distribution of communication networks in both regions as well as its quality and the establishment of government information portals, 2) organizing government and autonomous government work systems and processes holistically by preparing human resources who are familiar with technology, 3) utilizing information and communication technology optimally by providing complete information and security of public service transactions, 4) Increase the participation of the business world and develop the telecommunications and information technology industry, 5) develop the capacity of human resources in the government accompanied by increasing community e-literacy, 6) carry out systematic development through realistic and measurable stages through preparation, maturation, stabilization and utilization.

One of the tools that can be used in the implementation of e-government is social media. Social media with very high social dynamics, allows open communication to various parties with diverse backgrounds and interests. This can be used as the right tool to encourage information disclosure and generate citizen participation in building cities. Governance should not ignore the potential of social media. AlBar & Hoque, (2019) stated that social media applications have the potential to change the mediation process between government actors, institutions and citizens and this has been followed up by various public institutions around the world. Studies in various parts of the world show that the use of social media significantly changes the interaction between government and citizens so as to increase administrative transparency and encourage citizens to collaborate in development agenda setting (M. Graham & Avery, 2013; Haro-de-Rosario et al., 2018), facilitate mobilization for strengthening public policies, and facilitate public services produced jointly between citizens and government so that citizens feel ownership and participate in maintaining the resulting public policies (Bovaird et al., 2016; Linders, 2012).

However, the phenomenon is that social media in the government is still more used as a forum for sharing information and has not been implemented in public participation. The Minister of Apparatus Empowerment and Bureaucratic Reform of the Republic of Indonesia has made regulation No. 83 of 2012 concerning Guidelines for the Utilization of social media for Government Agencies which can be a reference for the use of social media at various levels of government. A study entitled E-Government Ranking in Makassar City (2013) by, Tasmil, (2013) shows the results that the implementation of e-government is still in the category of not good. Of the 18 government agencies studied, only one with a very good category, 7 good categories, 7 less and 3 very less.

Assessing that the development of e-government is still very low in Makassar City encourages the implementation of this research. Especially with the smart city concept that began to be implemented in 2014, Makassar City has established a program to improve the quality of public services, as part of the implementation of e-government. In implementing e-government, the Makassar City Government utilizes websites and social media to share information under the coordination of the Communication and Information Office. The social

media can be used as social interaction such as Facebook, Instagram, twitter, and WhatsApp, that contains issues of politic, corporation, daily activities and other promoting. The purpose of this study is to describe the policy of the Makassar City Government in developing e-government using social media.

Research Method

This study uses evaluation research methods used to explain the phenomenon of the decision-making process, namely to compare an event, activity and product with established standards (Haryono, 2020). The evaluation research method was used to obtain data on the phenomenon of social media implementation and e-government development policies in Makassar City. As the locus is the Makassar City Communication and Information Office, which is the center for distributing information from the Makassar City Government.

This research was conducted in Makassar City by specifically examining the social media accounts of the Makassar City Communication and Information Office, namely Instagram, Twitter and Facebook. During the data collection process, researchers conducted research in two places, especially in collecting interview data on parties related to e-government development policies using social media by the Makassar City Communication and Information Office. The location in question is the Makassar City Communication and Information Office and the Makassar City Government Office. In addition, data tracing in the form of documentation is also carried out to enrich the picture of the context studied. The documents used are archives of documentation of Facebook, Twitter and Instagram posts of the Makassar City Communication and Information Office, photographs and legal documents.

Result and Discussion

The use of social media has increased significantly in society. The emergence of new technologies and applications in people's lives supports the emergence of social interaction through social media (Hao et al., 2016). The existence of social media has helped people obtain the latest information, both in the surrounding environment and the wider environment. On that basis, many local governments use social media as an e-government service as a means of conveying information to the community (Furqon et al., 2018).

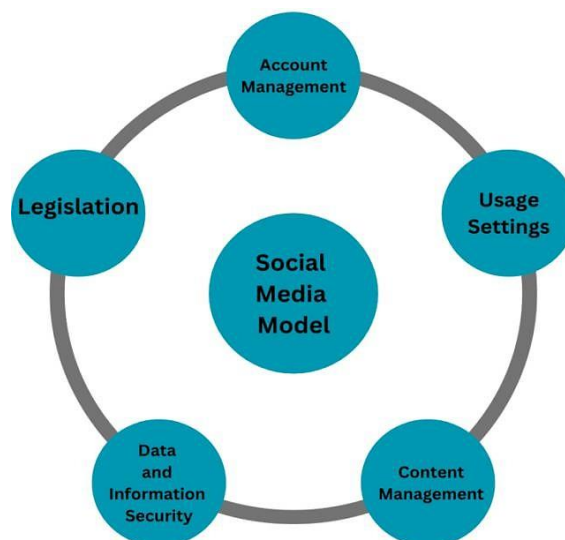


Figure 1. Social Media Policy in Government
Source : (Setiawan et al., 2013)

According to Mergel, (2013) changes to top-down based e-government adoption procedures are driven by the advent of web 2.0 technologies such as social media. E-government and social media are not separate trends. Social media as a technological innovation in the public sector Mergel, (2013), a major component of e- government (Jaeger & Bertot, 2010), a step forward for local governments utilizing more ICTs to provide information and services to external audiences and additional channels for government-stakeholder interaction (Mergel, 2013). More specifically, social media adoption follows a similar curve as previous waves of e-government and ICT utilization. This is because social media faces problems with the organizational culture and institutional structure of existing public sector organizations, although technically different (Rice & Leonardi, 2014). Social media adoption is influenced by the institutional and organizational mechanisms that drive the rate and breadth of adoption.

Some examples of social media adoption cases such as; The development of social media tools and web 2.0 applications by EU governments does not depend on citizen demand or the style of public administration, but follows developments previously seen at the government level. Second, empirical evidence suggests that the social/interactive capacity of social media has not been implemented by practitioners. Mergel, (2013) identifies social media tactics as encouraging (providing information to the government), engaging (inviting citizen input), and networking (responding to citizen input). Third, likee-government, social media is bound by issues involving records management, privacy requirements, special requirements, and ethics (Jaeger & Bertot, 2010) & (Mergel 2013). Fourth, the use of social media can improve communication between citizens and governments, but has nothing to do with citizens' skills in participating. Fifth, from the perspective of innovation adoption and institutionalization, governments that have adopted e-government are more likely to adopt more advanced technologies (Arduini et al., 2010; Norris & Moon, 2005).

One of the social media development strategies in government agencies in Indonesia refers to the POST method (People, Objective, Strategy and Technique). This strategy is even outlined in the Regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform of the Republic of Indonesia Number 83 of 2012, concerning Guidelines for the Utilization of social media for Government Agencies. The modern meaning of policy ideas in English is a set of actions or plans that contain political (Parsons et al., 2014). Since the post-World War II period, the word policy has meant policy as a rationale, a manifestation of considerate judgment. Hogwood Dan Gunn (1984: 13-19) in Parsons et al., (2014) mentions 10 uses of the term policy in the modern sense, namely: 1) as a label for a field of activity, 2) as an expression of general purpose or expected state activity, 3) as a specific proposal, 4) as a government decision, 5) as a formal authorization, 6) as a program, 7) as an output, 8) as an outcome, 9) as a theory or model, 10) as a process.

The above understanding shows that policies in an organization or institution are essentially always changing, following conditions or conditions in the field. Such is the case with the Makassar City Government, in making e-government development policies following the needs and developments that occur in the community. Makassar City's e- government development policy cannot be separated from the Makassar Smart City program. In the sense of Makassar as a smart city, Makassar Smart City is built based on SKPD innovation, is collaborative and characterized by integrated government with Clean, Comfort and Continuity values. The implementation of e-government in Makassar City is one form of the smart city program. This is a concept in complementing better and competent governance.

The Makassar city development targets in the Regional Medium-Term

Development Planning 2014-2019, National Medium-Term Development Planning 2020 – 2024 mention the general policies of Smart City including: 1) Publication of performance reports, 2) Smart City Movement, 3) Strengthening Human Resources and ICT Information and Communication Technology, 4) Development of electronic government, strategy programs in the document. Meanwhile, the stages of Makassar Smart City development are measured based on the maturity stage of the e-government adaptation process and the IT Government model of Cobit and ITGI.

The Makassar City Government continues to make improvements in the information technology sector to realize Makassar as a smart city. Based on the results of the evaluation of electronic-based government services, Makassar's current condition has improved. It is indicated through the following data:

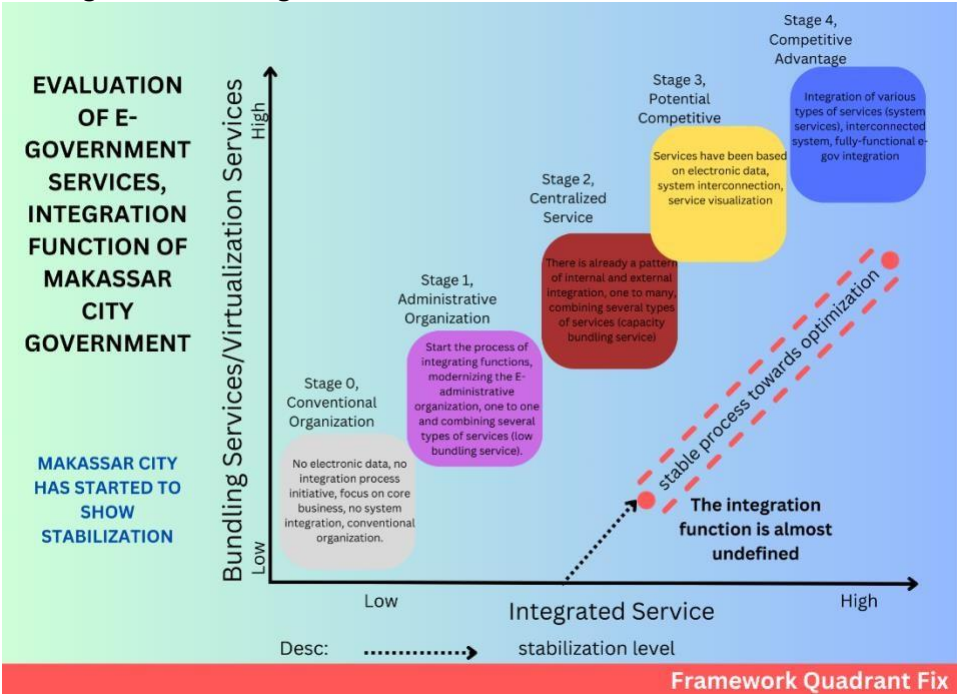


Figure 2. Evaluation of Electronic-Based Government Services
Source: integrasidata.id, 2020

In order to maximize current e-government services, the Makassar City Government not only focuses on smart city community service applications and websites, but also by utilizing social media. This function is carried out by the Communication and Information Agency of Makassar City as the agency responsible for the management of information and communication within the government. This agency includes providing information and providing solutions for the management of Makassar City Government data, by building information systems used by other agencies. Communication and Information Agency is also an integrator of all systems that have been built by agencies within the Makassar City government. It is hoped that this will be able to provide maximum service to the community.

Some regulations that form the basis for the implementation of the e-government development of the Makassar City Government by the Makassar City Communication and Information Agency, including:

Table 1. Basic *E-Government* Development Policy of Makassar City

Law of the Republic of Indonesia	<ol style="list-style-type: none"> 1. Law No. 11 of 2008 concerning Electronic Information and Transactions 2. Law No. 14 of 2008 concerning Public Information Openness 3. Law No. 25 on Public Service
Government Regulation	Government Regulation No. 18 of 2016 concerning Regional Apparatus Organization
President Regulation	<ol style="list-style-type: none"> 1. Presidential Instruction No. 3 of 2003 concerning National Policy and Strategy for E-Government Development 2. Presidential Regulation No. 95 of 2018 concerning Electronic Government System
Minister Regulation	<ol style="list-style-type: none"> 1. Minister of State Apparatus Empowerment and Bureaucratic Reform of the Republic of Indonesia No. 83 of 2012 concerning Guidelines for the Utilization of social media for Government Agencies 2. Minister of Home Affairs No. 35 of 2010 concerning Guidelines for the Management of Information and Documentation Services within the Ministry of Home Affairs and Local Government (Makassar City Regional Gazette of 2016) 3. Blue Print of E-Government Application System Ministry of Communication and Information Technology of the Republic of Indonesia 2004
Local Regulation	<ol style="list-style-type: none"> 1. Local Regulation No. 3 of 2009 concerning the Establishment and Organizational Structure of Regional Autonomy Apparatus 2. Local Regulation No. 5 of 2014 concerning RPJMD 2014-2019
Mayor Regulation	<ol style="list-style-type: none"> 1. Mayor Decree No: 821.23.605-2016 dated December 29, 2016 concerning the Organizational Structure of the Makassar City Communication and Information Office 2. Mayor Regulation No. 02 of 2012 concerning Guidelines for Management of Public Information Services and Documentation within the Makassar City Government 3. Mayor Decree No: 040.50/881/KEP/IX/2012 dated September 25, 2012 concerning the Determination of PPID Makassar City

Source: Processed Data Researchers, 2020

Referring to these characteristics, the description of the results of research on the diskominfo makassar twitter account and Instagram @lalinmks on December 18, 2019, from 00.01 to 24.00 there are several interesting things to be explained. The timing of the selection of Instagram and Twitter account posts was chosen randomly because generally the distribution of information carried out in these two media every day is almost the same. The number of posts made on twitter was 94 with 246 participations from 32 posts, openness 194 from 26 posts and there were 23 conversations from 6 posts. Here there are also 4 times the community involved from 4 posts and there are also 94 times the connectionally because what is a Communication and Information Agency post is CCTV monitoring.

Instagram @lalinmks, although fewer posts only 20 times a day, but the number of participations is quite large at 1,538 where each post always gets likes from followers, openness 7 times out of 7 posts, there are 62 conversations, involving 2 communities and 19 connections. If analyzed, the results are as follows:

Public Participation

Engaging on social media aims to inspire users or followers interested in the content shared on platforms such as Facebook, Twitter, and Instagram to actively contribute and provide feedback (Bonilla Quijada et al., 2022; Shahbaznezhad et al., 2021). Participation in Communication and Information Agency social media is the activity of liking, sharing, retweeting and commenting on content carried out by followers or audiences on each account. Researchers randomly selected Communication and Information Agency 's social media activity for a day (December 18,2019). The Twitter account received 246 likes, with 32 posts out of 94 total. The strategy to increase community involvement on social media accounts is to throw interesting content, so that people will be actively involved. When viewed from the tendency of Communication and Information Agency 's social media posts, funny, unique content, related to violations of regulations on the road, as well as about football stadiums, received a lot of response from the public.

The image and caption were also posted on the Instagram @lalinmks managed by Communication and Information Agency. This post even got the most likes from all shows in a day published on @lalinmks. There were 242 likes that appeared and the number grew until a few days later. This shows that many are uncomfortable with the actions of some less orderly motorists on the road. The active participation of the community was also seen on Communication and Information Agency 's Instagram account, when conveying the news of severe congestion in front of BTP Regency near from the Door-2 of Hasanuddin University. Not only pictures of vehicles, but location maps were also posted.

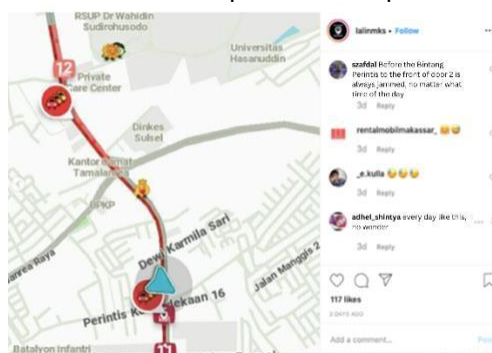


Figure 3. Instagram Followers' Posts @lalinmks about Crashes
Source: @lalinmks instagram

Communication and Information Agency accounts on Facebook did not post between November 26, 2019 and January 3, 2020. This account is left with no activity at all. But lately, especially since the Covid-19 outbreak occurred in Indonesia to the implementation of Large-Scale Social Restrictions in Makassar, Facebook Communication and Information Agency has actively carried out various interesting posts that invite comments from its followers. Facebook accounts are even made as attractive as possible with very attractive visuals. There are several posts even linked to the newly created Diskominfo youtube and television shows both national private, as well as television shows made by Diskominfo itself TVDiskominfo.

The number of likes is important because social media is a forum for content exchange, where the more likes the more content that can be spread. Lijan (2014) said that the high intensity of public participation is one of the main keys to quality of policy. Public policies produced by the government are valid in the high level of public participation. With public dialogue, it becomes the truth of a policy and as the main means of every policy that will be implemented. The form of public participation in supporting the use of social media

by the government to overcome social problems is still diverse (Lin & Kant, 2021). The level of participation is influenced by infrastructure conditions, especially public internet exposure. There are many ways of participation, from participating in government social media activities to building initiatives to help or ease the work of the government for the better.

Various findings obtained by researchers can be concluded that in general there is participation in Communication and Information Agency social media but the level of participation is different. On Facebook, the level of participation is very limited, even very minimal. On Instagram the number of participants is much higher than Twitter, although the number of posts is less. For example, posting on December 18, 2019, Instagram @lalinmks posts 20 times a day and all of its posts get likes from followers with a total of 1,538. On the same day, Diskominfo Twitter did 94 posts, only 32 posts received likes for a total of 246. While Facebook in this period there are no posts.

This shows that some content that has likes is quite high, but there are still far more content that does not have likes. In addition, the activity of sharing or commenting relevant to the content submitted is very little. Account managers need to package information that is needed by followers, so that interaction can occur by how followers like, share and comment on the content submitted. Thus, it will encourage public participation in the administration of government. This is in line with the development of e-government that prioritizes public participation to realize a clean, transparent and open government.

Public Openness

Services in social media mostly have the principle of openness to information and content disseminated (Criado et al., 2013). Social media is open for all users to be able to provide information, comments on current issues and also not infrequently social media is used as a tool for voting. In terms of openness, Communication and Information Agency social media provides space to the community as an open service for feedback and participation. There are comments and information exchanges that occur both through Facebook, Instagram and Twitter. In utilizing the content of community content is also free to use it in the form of sharing, retweeted, repost, mention and hashtags.



Figure 4. The original data source from Account posts @ibzn
 Source: @lalinmks instagram

In terms of openness that provides opportunities for social media to conduct polls or voting, on social media *Diskominfo* has never done. The form of openness that occurs on

Instagram is in the form of followers making their own posts then mentioning or hashtags on *Diskominfo* social media, or feedback from existing posts, with a total of 7 times out of 7 posts (dated December 18, 2019). While on Twitter 194 times out of 26 posts in the form of comments, feedback and retweets.

City social media opens opportunities for the community to receive public services more quickly and precisely with the support of operation rooms that work 24 hours a day. Of course, this brings improvements in aspects of public services.

Public Conversation

Social media allows its users to be able to have two-way conversations. Compared to traditional media that convey information by sending content or information to the audience without any response or feedback to the information, social media is considered to be a better means (MacDonald et al., 2020). In *Diskominfo*'s social media, conversation is seen more as a two-way dialogue of content distributed to followers. The content of the post can be immediately responded by other followers in just seconds after it is distributed. Especially if the content shared is interesting enough to be discussed and often experienced/witnessed by the road user community. As @lalinmks reposted the appeal: No Smoking While Driving (Figure 5). The post from the Ministry of Land Transportation on its Instagram on December 10, 2019 was reposted by @lalinmks on December 18, 2019.



Figure 5. The original data display obtains from Instagram posts

Source : @lalinmks instagram

As an official institution, conversations on *Diskominfo*'s social media should be managed properly. As a media conveying government policies and achievements achieved, and a place for the public to provide responses, criticisms, suggestions and complaints, every information that appears through social media must be well documented (Becker et al., 2012; Bian et al., 2008; Hestianti et al., 2022). This will also make it easier to respond to any input from the community.

Community Engagement

Social media also enables users to form and join communities that are tailored to their specific characteristics (Mulasari et al., 2022; Ronen et al., 2014). Social media can help users communicate effectively and quickly when they share similar interests. For example, photography hobbies, political interests, or favorite television shows. Various communities on social media can emerge quickly and effectively in their fields of interest. Social media provides the ability for users to connect with each other and form groups (communities) to socialize, share information, and achieve certain goals. Thus, social media can form online communities that allow users to share as much or as little information as they want. One

example of an interesting post on Instagram @lalinmks is the result of a repost from @streetmannersindonesia one of the communities that actively campaigns for orderly traffic. This account even actively invites the public to contribute to orderly traffic through posts on social media.



Figure 6. Posts on Instagram about Communities
 Source : @lalinmks instagram

Social media in Communication and Information Agency makes it possible for the community to appear quickly and communicate effectively. They can share similarities or interests in a problem, hobbies or political issues as well as favorite TV shows. It's just that the author's findings for the community category on Diskominfo social media, both Facebook, Instagram and Twitter, are not as big as the categories of participation, openness, conversation and connection. As the data that researchers summarized on December 18, 2019, for Instagram 20 posts there are only 2 of the communities that appear, namely the #instamakassar community and @streetmannersindonesia involved in @lalinmks posts. While the Makassar Kota Bersih community @BersihMakassar, @indonesiabaik the community that appeared on twitter.

Service Connectedness

The connection, being the advantage of social media, because it can take advantage of various links to websites, sources of information and other communities. Most social media thrives because it has a connection with each other (Ellison & Hardey, 2014; M. W. Graham, 2014; Plessis, 2018; Wang & Yang, 2020). Communication and Information Agency social media is quite developed because it has connectivity, using various links to several government websites, other sources of information and with the public. Connectedness in the characteristics of social media in the Ministry of Communication and Information is translated as interagency collaboration. On Facebook, for example, on the front page of the Fanpage installed many services connected to Facebook. Such as links to WhatsApp and messengers, as well as installing service info about CCTV Smart Security System (city security monitoring services, in collaboration with Makassar City Police station) and Single Number Emergency Call Service 112 (emergency health, accident, disaster and security services for Makassar city residents).

Similarly, on twitter, the profile of this account mentions that the media managed by the Information and Telematics Department of the Communication and Information Agency, facebook.com/kominfo.id, for HEBAT #MakassarAMAN web link: makassarkota.go.id. shows that Twitter is connected to several other features owned by the Makassar City Government. The @DiskominfoMks account also utilizes the pin feature on twitter, which is a feature that allows admins to pin important posts at the very top of twitter and will not be shifted with new posts. The post coded with pinned tweet is a post about Call Centre info 112, posted on February 27, 2017.



Figure 7. Pin feature on Twitter Communication and Information Agency homepage

Source : twitter

The message, which was posted in 2017, was also connected to 8 official accounts from government agencies and from other large accounts respectively: Makassar Fire Guard Station, Makassar Police Station, Public Works Agency, @infosatudotkom, @Makassarinfo, @DaengInfo and @SupirPete2. Account managers must be selective in choosing messages that are considered important and worth pinning. Because once posted, there are 36 conversations that occur in this post and last observed on November 29, 2019 still get appreciation from the community. This post has also been retweeted by 231 accounts and liked by 223 people. Data showing that the information shared by Communication and Information Agency is needed by many people. Posts that are a connectivity with other agency accounts including Diskominfo retweeted Angkasa Pura Airports' posts regarding hoaxes about job openings and calls for prospective workers (Okundaye et al., 2019). It is hoped that with this warning, the community will be more careful. The connection in Diskominfo twitter almost occurs in all posts. The main content of this channel is posting CCTV camera captures, posting from the posts of other agencies (repost or retweeted), can mention or write with code (@), can hashtags or hashtags or hashtags (#) with the aim of getting more and more people to see the posts made.

A citizen reported on twitter from the account owner @Rumahmakassar2 with the caption: Total traffic jam Jln Dr. Leimena Antang. The owner of this account also hashtagged #DiskominfoMKS #CCTV mentioning @DiskominfoMKS, @jokowi, @tribuntimur @kemenhub151 @detikcom (figure 8). the owner of this account is also very aware of the function of social media that can connect with anyone, and their complaints can also reach the president just by tagging his account. That's why @Rumahmakassar2 mentions certain accounts. Instagram @lalinmks in its posts most often uses hashtags to get a lot of attention. Similarly, in socializing other channels, especially all Diskominfo official accounts, both Facebook, Twitter, other Diskominfo Instagram channels and email addresses (AlBar & Hoque, 2019).



Figure 8. Posts Followers of @Rumahmakassar2
 Source : twitter

Diskominfo's effective social media connectivity extends beyond the private sector to encompass government agencies like the Fire Guard and the Meteorology, Climatology, and Geophysics Board, particularly in handling emergency situations. This strategic collaboration aligns with the Communication and Information Agency's directive concerning the dissemination of information related to all activities of the Makassar city government. The seamless integration of social media platforms facilitates swift and widespread communication, ensuring that critical information reaches the public and relevant authorities promptly during emergency situations (Simon et al., 2015; Wendling et al., 2013). This multi-agency approach exemplifies a comprehensive and coordinated effort to leverage social media for both public engagement and crisis management, highlighting the importance of unified communication strategies across diverse sectors.

Conclusion

The development of e-government in Makassar City is still very limited in terms of regulations, because there is no support for institutional strengthening, no master plan as an implementation guide, and no application system blueprint to achieve an integrated platform. Nevertheless, Makassar City's e-government development policy cannot be separated from the umbrella of the Makassar Smart City program. In the sense that Makassar is a smart city, Makassar Smart City is built based on the innovation of government agencies, is collaborative and characterized by an integrated government with the values of Clean, Comfort, and Continuity.

The Makassar City Government continues to make improvements in the information technology sector to realize Makassar as a smart city. In order to maximize current e-government services, the Makassar City Government does not only focus on smart city applications through websites and social media. This function is carried out by the Communication and Information Agency responsible for managing information and communication within the government and society.

References

- Adesida, O. (2001). *Governance in Africa: The Role for Information and Communication Technologies*. African Development Bank Abidjan. <http://213.154.74.164/invenio/record/16283/files/adesida.pdf>
- AlBar, A. M., & Hoque, M. R. (2019). Factors affecting the adoption of information and communication technology in small and medium enterprises: A perspective from rural Saudi Arabia. *Information Technology for Development, 25*(4), 715–738.
- Arduini, D., Belotti, F., Denni, M., Giungato, G., & Zanfei, A. (2010). Technology adoption and innovation in public services the case of e-government in Italy. *Information Economics and Policy, 22*(3), 257–275.
- Becker, H., Itery, D., Naamanz, M., & Gravanoy, L. (2012). Identifying content for planned events across social media sites. *WSDM 2012 - Proceedings of the 5th ACM International Conference on Web Search and Data Mining, 533–542*. <https://doi.org/10.1145/2124295.2124360>
- Bian, J., Agichtein, E., Liu, Y., & Zha, H. (2008). Finding the right facts in the crowd: Factoid question answering over social media. *Proceeding of the 17th International Conference on World Wide Web 2008, WWW'08, 467–476*. <https://doi.org/10.1145/1367497.1367561>
- Bonilla Quijada, M. del R., Perea Muñoz, E., Corrons, A., & Olmo-Arriaga, J. L. (2022). Engaging students through social media. Findings for the top five universities in the world. *Journal of Marketing for Higher Education, 32*(2), 197–214. <https://doi.org/10.1080/08841241.2020.1841069>
- Bovaird, T., Stoker, G., Jones, T., Loeffler, E., & Pinilla Roncancio, M. (2016). Activating collective co-production of public services: influencing citizens to participate in complex governance mechanisms in the UK. *International Review of Administrative Sciences, 82*(1), 47–68.
- Criado, J. I., Sandoval-Almazan, R., & Gil-Garcia, J. R. (2013). Government innovation through social media. In *Government Information Quarterly* (Vol. 30, Issue 4, pp. 319–326). Elsevier. <https://doi.org/10.1016/j.giq.2013.10.003>
- Donnellan, B., Sheridan, C., & Curry, E. (2011). A capability maturity framework for sustainable information and communication technology. *IT Professional, 13*(1), 33–40. <https://doi.org/10.1109/MITP.2011.2>
- Ellison, N., & Hardey, M. (2014). Social Media and Local Government: Citizenship, Consumption and Democracy. *Local Government Studies, 40*(1), 21–40. <https://doi.org/10.1080/03003930.2013.799066>
- Furqon, M. A., Hermansyah, D., Sari, R., Sukma, A., Akbar, Y., & Rakhmawati, N. A. (2018). Analisis Jenis Posting Media Sosial Pemerintah Daerah Di Indonesia Berdasarkan Like Dan Analisis Sentimental Masyarakat. *Jurnal Sositologi, 17*(2), 177. <https://doi.org/10.5614/sostek.itbj.2018.17.2.1>
- Grace, J., Kenny, C., Qiang, C. Z. W., Liu, J., & Reynolds, T. (2004). Information and communication technologies and broad-based development: A partial review of the evidence. *World Bank Working Paper, 12*, 1–53.
- Graham, M., & Avery, E. (2013). Government public relations and social media: An analysis of the perceptions and trends of social media use at the local government level. *Public Relations Journal, 7*(4), 1–21.
- Graham, M. W. (2014). Government communication in the digital age: Social media's effect on local government public relations. *Public Relations Inquiry, 3*(3), 361–376. <https://doi.org/10.1177/2046147X14545371>

- Hao, X., Zheng, D., Zeng, Q., & Fan, W. (2016). How to strengthen the social media interactivity of e-government: Evidence from China. *Online Information Review*, 40(1), 79–96.
- Haro-de-Rosario, A., Sáez-Martín, A., & del Carmen Caba-Pérez, M. (2018). Using social media to enhance citizen engagement with local government: Twitter or Facebook? *New Media & Society*, 20(1), 29–49.
- Haryono. (2020). Ragam Metode Penelitian Kualitatif Komunikasi. In *Vox Populi* (Vol. 3, Issue 1). CV Jejak (Jejak Publisher).
- Hestianti, A. P., Hartaman, N., & Sarmito. (2022). Women's Political Communication: The Case Study of Karolin Margret Natasa. *Asian Political Science Review*, 5(1), 22–30.
- Jaeger, P. T., & Bertot, J. C. (2010). Transparency and technological change: Ensuring equal and sustained public access to government information. *Government Information Quarterly*, 27(4), 371–376.
- Lin, Y., & Kant, S. (2021). Using social media for citizen participation: Contexts, empowerment, and inclusion. *Sustainability*, 13(12), 6635.
- Linders, D. (2012). From e-government to we-government: Defining a typology for citizen coproduction in the age of social media. *Government Information Quarterly*, 29(4), 446–454.
- MacDonald, B. H., Cadman, R., Martin, C., Ryder-Burbidge, S., Soomai, S. S., Stewart, I., & Wells, P. G. (2020). Is the production and use of grey marine literature a model for open science? *Grey Journal (TGJ)*, 16(2).
- Mensah, I. K. (2020). Impact of Government Capacity and E-Government Performance on the Adoption of E-Government Services. *International Journal of Public Administration*, 43(4), 303–311. <https://doi.org/10.1080/01900692.2019.1628059>
- Mergel, I. (2013). A framework for interpreting social media interactions in the public sector. *Government Information Quarterly*, 30(4), 327–334. <https://doi.org/10.1016/j.giq.2013.05.015>
- Muliasari, N., Sahrir, V. A., & Hartaman, N. (2022). Disaster Communication Campaign Via Instagram and Twitter Palang Merah Indonesia. *Jurnal Audiens*, 3(3), 141–148.
- Norris, D. F., & Moon, M. J. (2005). Advancing e-government at the grassroots: Tortoise or hare? *Public Administration Review*, 65(1), 64–75.
- Okundaye, K., Fan, S. K., & Dwyer, R. J. (2019). Impact of information and communication technology in Nigerian small-to medium-sized enterprises. *Journal of Economics, Finance and Administrative Science*, 24(47), 29–46.
- Parsons, A. R., Liu, A., Aguirre, J. E., Ali, Z. S., Bradley, R. F., Carilli, C. L., Deboer, D. R., Dexter, M. R., Gugliucci, N. E., Jacobs, D. C., Klima, P., Macmahon, D. H. E., Manley, J. R., Moore, D. F., Pober, J. C., Stefan, I. I., & Walbrugh, W. P. (2014). New limits on 21 cm epoch of reionization from paper-32 consistent with an x-ray heated intergalactic medium at $z = 7.7$. *Astrophysical Journal*, 788(2), 106. <https://doi.org/10.1088/0004-637X/788/2/106>
- Plessis, D. C. (2018). Social media crisis communication: Enhancing a discourse of renewal through dialogic content. *Public Relations Review*, 44(5), 829–838.
- Rice, R. E., & Leonardi, P. M. (2014). Information and communication technologies in organizations. *The SAGE Handbook of Organizational Communication: Advances in Theory, Research, and Methods*, 425–448.
- Ronen, I., Guy, I., Kravi, E., & Barnea, M. (2014). Recommending social media content to community owners. *Proceedings of the 37th International ACM SIGIR Conference on Research & Development in Information Retrieval*, 243–252.

- Setiawan, A. W., Mengko, T. R., Santoso, O. S., & Suksmono, A. B. (2013). Color retinal image enhancement using CLAHE. *Proceedings - International Conference on ICT for Smart Society 2013: "Think Ecosystem Act Convergence", ICISS 2013*, 215–217. <https://doi.org/10.1109/ICTSS.2013.6588092>
- Shahbaznezhad, H., Dolan, R., & Rashidirad, M. (2021). The Role of Social Media Content Format and Platform in Users' Engagement Behavior. *Journal of Interactive Marketing*, 53(1), 47–65. <https://doi.org/10.1016/j.intmar.2020.05.001>
- Simon, T., Goldberg, A., & Adini, B. (2015). Socializing in emergencies - A review of the use of social media in emergency situations. *International Journal of Information Management*, 35(5), 609–619. <https://doi.org/10.1016/j.ijinfomgt.2015.07.001>
- Tasmil, T. (2013). Peningkatan E-Government di Kota Makassar. *Jurnal Pekommas*, 16(3), 187–196. <https://doi.org/https://doi.org/10.30818/jpkm.2013.1160306>
- Wang, Y., & Yang, Y. (2020). Dialogic communication on social media: How organizations use Twitter to build dialogic relationships with their publics. *Computers in Human Behavior*, 104, 106183.
- Wendling, C., Radisch, J., & Jacobzone, S. (2013). The Use of Social Media in Risk and Crisis Communication. *OECD Working Papers on Public Governance No. 24*, 24, 1–42.