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Digitalization Era: Website Based E-Government

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Abstract

The problem in this research is that public services are still manual because the websites in each agency are still inadequate to provide online services, the condition of the website cannot be accessed, many pages are blank and the news displayed is not up to date, this indicates that the website of the agency from The Regional Work Units in Enrekang Regency has not met the standards set by *Diskominfo* in 2017. The purpose of this study is to see the quality of the website in terms of transparency, effectiveness, and efficiency. Moreover, to see the role of social media in the application of website-based e-government in the Enrekang District Work Unit (SKPD). Research using quantitative methods. The data in the study used online media from the Enrekang Regency website by looking at specific criteria from the agency website of the Regional Work Unit. The technique for calculating existing data is that if there is data available, it will be given a score of 1 and if the information is not available on the website it will be given a score of 0. The results of this study, the websites of local government agencies, are not transparent, ineffective, and inefficient. The role of social media is also not influential because there is no feedback provided by the government on input and questions given by the public.

Keywords: *Transparency, Effectiveness, Efficiency, Social Media*

1. Introduction

The Indonesian government has issued Presidential Instruction No. 3 of 2003 concerning the National Policy and Strategy for e-Government Development, where the policy is the legal umbrella of all detailed technical procedures in the e-Gov field. E-government development is an effort to develop (using) electronic-based governance to improve the quality of public services effectively and efficiently. [1]. The e-government products designed by local governments are diverse. This diversity is classified into several indicators such as platform, target users, the purpose of creation, and other indicators. Website is one of the e-government products as a medium to increase interest and opportunity for the public in providing public services and feedback from the community. [2].

During its development, most of the existing e-Government application development stages are still focused on providing websites and information services only [3]. So if a local government already has a website, there is an assumption that it has implemented an e-Government application. The concept of e-Government does not only display government information through website services, but there is a transformation of the relationship between the government and all stakeholders who previously used conventional media to switch to using information technology [4]. E-government is built to facilitate the dissemination of information from the government to the public. The public can access government information from anywhere and anytime [5]. According to the draft Kominfo Regulation of 2017, the website must have a minimum of content, such as at a glance, local government, geography, maps of areas and resources, regional regulations or policies, and guest books and news. Meanwhile, according to Presidential Instruction No. 3 of 2003, e-government must meet the aspects of efficiency, effectiveness, transparency, and accountability of government. If all the criteria match, then the website can be said of quality [6].

In Enrekang Regency, the use of information and communication technology is only at the initial stage of e-government growth, such as the preparation stage involving the establishment of an information site in each institution; HR preparation; preparation of accessible facilities, such as the provision of a multi-purpose Community Center, Internet café, SME-Center, etc. [7]. The application of website-based e-Government in Enrekang district has not been optimal, seen from the availability of information and online services from each



agency website in the SKPD (Regional Work Units). There are even some agencies that have not yet provided a website, while e-government's purpose is to create values of transparency and build online, not customers in line. With e Gov's presence, it hoped it could help the community get services quickly without having to wait long to get cheap, transparent services. The website of the agency in Enrekang Regency may be configured as a means of interaction between people and officials of government, given that each agency in Enrekang Regency is not located in one place. What happens though, is that public services are still manual since each agency's websites are still insufficient to deliver these online services. With the website condition which cannot be accessed, many pages are blank and the news displayed is not up-to-date, this indicates that the Regional Work Unit agency website in Enrekang Regency did not meet the standards set by Diskominfo in 2017. The following is a list of agencies in the District Work Unit in Sidenreng Rappang.

Table 1. Research Objects

No	Agency Name	Website address
1	Social Services	https://dinsos.enrekangkab.go.id/
2	Department of Agriculture	https://distan.enrekangkab.go.id/
3	public health Office	https://dinkes.enrekangkab.go.id/
4	Department of Transportation	http://dishub.enrekangkab.go.id/
5	public Works Service	https://pu.enrekangkab.go.id/
6	environmental services	https://dlh.enrekangkab.go.id/
7	Food Security Service	http://diskepan.enrekangkab.go.id/
8	Department of Animal Husbandry and Fisheries	http://disnakin.enrekangkab.go.id/
9	Department of Education and Culture	http://disdikbud.enrekangkab.go.id/
10	Department of Library and Archives	https://dispustaka.enrekangkab.go.id/
11	Massen Rempulu General Hospital	https://rsum.enrekangkab.go.id/
12	Department of Industry and Commerce	https://disperindag.enrekangkab.go.id/
13	Youth Sports and Tourism Office	https://dispopar.enrekangkab.go.id/
14	Community and Village Empowerment Service	https://dpmd.enrekangkab.go.id/
15	Department of Communication, Informatics, and Statistics	https://diskominfo.enrekangkab.go.id/
16	Office of Cooperatives, UKM, Manpower, and Transmigration	http://diskopnakertrans.enrekangkab.go.id/
17	One-Stop Services and Investment Service	https://dpmpstsp.enrekangkab.go.id/
18	Office of Empowerment and Women and Child Protection	https://dpp-pa.enrekangkab.go.id/
19	Department of Population and Civil Registration	http://disdukcapil.enrekangkab.go.id/
20	Housing Agency, Residential Area and Spatial Planning	https://perkim.enrekangkab.go.id/

Source: Enrekang Regency website

The same thing has also been researched by [6] Which looks at the quality of local government websites in terms of feature assessment, transparency, accountability, effectiveness, and efficiency, as well as the extent to which users use local government websites. Different from previous studies, which took samples from 16 districts/cities, while this study focused on the website of the Regional Work Unit Agency in Enrekang Regency. Previous research also assessed websites in terms of features, transparency, accountability, effectiveness, and efficiency. However, in this study, we only focused on the transparency, effectiveness, and efficiency of the SKPD agency websites in Enrekang Regency. Based on the problems that have been previously presented, the purpose of this study is to see the quality of the website in terms of transparency, effectiveness, and efficiency. And to see the role of social media in the implementation of website-based e-government in the Enrekang District Work Unit (SKPD).

2. Methodology

This research article follows a thorough review process following the method suggested by Webster and Watson[8]. This research uses quantitative methods. Analyze data by describing or describing the data that has been collected [9]. Discuss and understand the meaning proposed by each person or group of people related to social problems or assistance (Ahmad et al., 2020). The research subjects used purposive sampling, with sample determination based on specific considerations (Ahmad, 2015). The data in the study used online media from

the Enrekang Regency website by looking at particular criteria from the agency website of the Regional Work Unit. The technique for calculating existing data is that if there is data available, it will present a score of 1. If the information is not available on the website, it will offer a score of 1. If the data is not available on the website, it will submit a score of 1, and if the information is not available on the website, it will present a score of 0.

Table 2. Analysis of Measurement Categories

No	Measurement Indicator	Sub Measurement Indicator
1	Transparent	<ol style="list-style-type: none"> 1. Up to date news 2. Long Term Development Plan 3. Medium Term Development Plan 4. Strategic Plan 5. Local government performance reports 6. Regional financial reports
2	Effectiveness	<ol style="list-style-type: none"> 1. Public services 2. Email 3. Telephone 4. Website address
3	Efficiency	<ol style="list-style-type: none"> 1. Website pages do not have blank links (broken links) 2. Important pages are not on the main page such as the agency's Vision and Mission 3. The website does not contain intermediate pages
4	Social Media	<ol style="list-style-type: none"> 1. Facebook 2. Instagram 3. Youtube 4. Twitter

3. Basic Theory

3.1 E-Government

In the perspective of e-government, the internet can be given as the belief of e-government users regarding the internet's reliability in providing accurate information and secure transactions [10]. The online provision of government information and services through the internet or other digital media means e-Government [11]. E-Government is an electronic-based good governance development[12]. The implementation of E-Government makes public service centers closer to the community (public) [13].

Transparency is built based on the free flow of information relating to public interests directly accessible to the people in need [14]. Transparency is a principle that guarantees access or freedom for everyone to obtain information about government administration, such as information about policies, the process of making and implementing them, and the results achieved [15]. The conceptual framework in building transparency in public sector organizations requires four components[16].

Effectiveness is a measure of the success or failure of achieving organizational goals [17]. If an organization has succeeded in achieving its goals, then the organization has been running effectively [18]. The criteria or measure of effectiveness can be assessed from the productivity of the organization or output, the flexibility of the organization, and the form of its success in adapting to changes inside and outside the organization, as well as from the presence or absence of tension in the organization or obstacles to conflict between parts of the organization. [19].

3.2 Social Media in E-Government

[20] Oginni said the growth of social media platforms over the past decade has altered how governments and people interact. Social media has opened up opportunities for greater engagement in politics, generating new social dynamics. It is an Internet-based tool that unifies people who are geographically scattered on virtual platforms through user-generated content [21]. Governments use social media platforms as an alternative way to disseminate public information, while they fail to involve people in engaging debates and events in some cases [22].

There is no clear response to the question of whether citizen participation through social media contributes to the growth of e-government [23].[24] Social media was also once considered a form of technology that facilitates social interaction, makes collaboration possible, and enables cross-stakeholder deliberation. [25] The use of social media has emerged mainly through informal experimentation and quickly gained traction. They have an unprecedented social and interactive nature and are committed to facilitating two-way communication and co-production. The most popular social media today are Facebook, Youtube, Instagram, and Twitter.

4. Result and Discussion

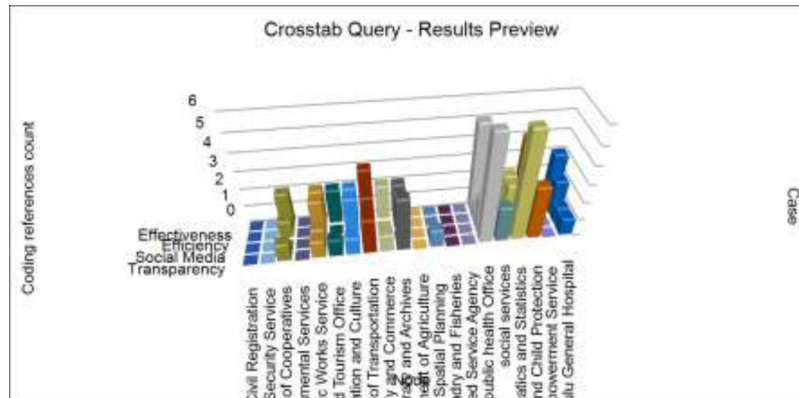
4.1 Research result

This research was conducted in the Enrekang Regency, which made the agencies in the regional work units the object of research, totaling 20 agencies. The study will look at the role of social media in website-based e-government in terms of transparency, effectiveness, and efficiency of related institutions. However, before that, the researcher will describe the website assessment of each agency, the following table and charts are the scoring result of the research conducted in assessing the website which has been specified.

Table 3. Percentage Results

Agency	Transparency	Effectiveness	Efficiency	Social media	Assessment
Social Services	12%	12%	6%	6%	36%
Department of Agriculture	0	0	0	0	0%
public health Office	35%	23%	6%	12%	76%
Department of Transportation	12%	18%	12%	6%	48%
public Works Service	6%	12%	12%	6%	36%
environmental services	0	0	0	0	0%
Food Security Service	0	0	0	0	0%
Department of Animal Husbandry and Fisheries	0	0	0	0	0%
Department of Education and Culture	6%	12%	12%	0	30%
Department of Library and Archives	18%	12%	12%	0	42%
Massen Rempulu General Hospital	6%	18%	12%	6%	42%
Department of Industry and Commerce	6%	12%	0	0	18%
Youth Sports and Tourism Office	6%	12%	0	0	18%
Community and Village Empowerment Service	0	0	0	0	0%
Department of Communication, Informatics and Statistics	35%	12%	12%	6%	65%
Office of Cooperatives, UKM, Manpower and Transmigration	6%	12%	6%	0	24%
One Stop Services and Investment Service	0	0	0	0	0%
Office of Empowerment and Women and Child Protection	18%	23%	6%	6%	53%
Department of Population and Civil Registration	0	0	0	0	0%
Housing Agency, Residential Area and Spatial Planning	6%	0	0	0	6%
Average	8.6	8.9	4.8	2.4	24.7

Source: Website Research Results



Source: Nvivo 12 Plus

Based on the table and chart above it can be seen that almost all regional apparatus in Enrekang Regency have a website, but only 52% can be accessed, while 48% of the existing websites, cannot function or have a blank webpage. Including the institutions in the table that are the object of research, 7 websites cannot function.

However, of the 20 agencies in the table, apart from 7 websites that cannot be accessed, some do not provide updated news or information and data. Judging from the assessment score, there is only 1 website that includes the quality category, which is the Health Service with a score of 75%, out of 17 subjects that are considered capable of presenting 13 data. The Office of Communication, Informatics, and Statistics has a score of 65% which can offer 11 data from 17 assessment categories, and the Office of Women Empowerment and Child Protection has a score of 53% which can present data on 10 of the 17 assessment categories. So that the two agencies fall into the category of "sufficient quality".

Meanwhile, 6 agencies fall into the "low quality" category, including the transportation agency with a score of 48%, which is only able to present 8 data from 17 assessment indicators. Then the library and archives service, as well as the Massen Rempulu public hospital, had the same score, which is 42%, which was able to present 7 data from 17 assessment categories. Meanwhile, the Social Service and the Public Works Office also have each score of 36%, which can present 6 data from 17 assessment indicators. Then the Education and Culture office has a score of 30%, data owned by 5 out of 17 assessment categories.

While 11 out of 20 agencies fall into the unqualified category, including the Office of Cooperatives, UKM, Manpower and Transmigration which has a score of 24%, presenting 4 data from 17 assessment categories. The Department of Industry and Trade and the Office of Youth, Sports and Tourism each have a score of 18% with the presentation of the data 3 of the 17 assessment indicators. Besides, the Housing, Settlement Areas and Spatial Planning Services only scored 6%, with the production of the data, only 1 of the 17 assessment indicators. Meanwhile, 7 other agencies have a percentage of 0% because the website cannot be accessed or is a broken link.

4.2 Discussion

[21] Said that social media is used only for disseminating information to the public; collect information from citizens, but not to involve them in decision-making processes. The results of the 2018 survey by the Indonesian internet service providers association, the most frequently visited social media are Facebook, Instagram, Youtube, and Twitter [26]. The purpose of this study is to see the quality of the website in terms of transparency, effectiveness, and efficiency. Moreover, to see the role of social media in implementing website-based e-government.

From the results of research on 20 websites of regional work units, the transparency indicator gets a score of 8.6%, which falls into the non-transparent category. It means that on average the agencies in the local government of Enrekang Regency are not transparent in providing services to the community, due to the lack of the information supplied, both in terms of RPJP, RPJM, Renstra, performance reports, and financial reports are not displayed on the website of the agency concerned. Likewise, the average effectiveness score of all agencies is 8.9% which is also in the ineffective category, meaning that the provision of public services, both in the form of email phones and navigation systems, is not provided and optimally functioned on the website of each agency—results in the absence of feedback from the government for people who offer services through

online media. Meanwhile, the efficiency indicator also has an average score of 4.8%, making it in the inefficient category. It happens because important information from agencies is not included on the main page of the website, such as the vision, mission, and organizational structure of the relevant agencies. As well as many pages from the website that cannot be accessed or broken links and some have blank pages, so the data that we are looking for on the website cannot be found.

Social media has the lowest average score of 2.4%; this is due to the use of social media from 20 agencies; only 8 agencies use it. From the survey results [26] The most frequently visited social media are Facebook, Instagram, Youtube, and Twitter, from all internet users in Indonesia.

Meanwhile, specifically for government agency websites in Enrekang district, they do not place the four social media on the government website pages as well as 12 agencies that do not have one of the four social media. Facebook is a social media used by 8 regional work units in Enrekang Regency, while only the health office uses Youtube. However, of the 8 social media, the uploaded information is also not updated. Moreover, comments or questions given by the community are also not served well. Seeing the low quality of transparency, effectiveness, and efficiency in Regional Work Units should use social media as one of the media to provide factual and updated information to the public and utilize social media as a feedback tool to provide optimal service, to create good government. However, the results of this study, the websites of local government agencies, are not transparent, ineffective, and inefficient and the role of social media also does not affect because there is no feedback given by the government on input and questions presented by the community.

5. Conclusion

Website-based e-government in Enrekang Regency is still in the early stages of development, which is website procurement because the existing websites are not yet interactive. The community has not been able to receive the benefits of the website. Of the 20 agency websites studied, only 1 website was in the quality category, 2 websites were in the reasonably quality category, 7 websites were in the low-quality class, and 10 websites were in the unqualified type. Social media also does not play an active role in the transparency, effectiveness, and efficiency of local government websites. Because there is no feedback from the local government itself.

References

- [1] Sriyati, F. Satria, and dkk., "PEMANFAATAN E-GOVERNMENT SEBAGAI MEDIA PROMOSI DI BIDANG PARIWISATA EKONOMI KREATIF (Studi Kasus : Dinas Pariwisata Ekonomi Kreatif, Kabupaten Pesawaran)," *Technol. Accept. Model*, pp. 80–87, 2017, [Online]. Available: <http://ojs.stmikpringsewu.ac.id/index.php/JurnalTam/article/view/52>.
- [2] N. P. Yunita and R. D. Aprianto, "Kondisi Terkini Perkembangan Pelaksanaan E-Government Di Indonesia : Analisis Website," *Semin. Nas. Teknol. Inf. dan Komun.*, vol. 2018, no. Sentika, pp. 329–336, 2018.
- [3] V. Krishnaraju, S. K. Mathew, and V. Sugumaran, "Web personalization for user acceptance of technology: An empirical investigation of E-government services," *Inf. Syst. Front.*, vol. 18, no. 3, pp. 579–595, 2016, doi: 10.1007/s10796-015-9550-9.
- [4] K. Tsetsura and K. Aziz, "Toward professional standards for media transparency in the United States: Comparison of perceptions of non-transparency in national vs. regional media," *Public Relat. Rev.*, vol. 44, no. 1, pp. 180–190, 2018, doi: 10.1016/j.pubrev.2017.06.008.
- [5] V. Ferdiansyah and D. Hidayat, "E-Government Study Penomenologi RW-NET Sebagai pelayanan Publik Yang Transparan dan Akuntabilitas dengan Optimalisasi Funnksi E-Government Di Pemerintah Kota Bandung," 2014, [Online]. Available: Bandung.
- [6] C. Cheisviyanny, H. Helmy, and S. Dwita, "Analisis Kualitas Website Pemerintah Daerah Kabupaten/Kota di Provinsi Sumatera Barat," *Simp. Nas. Keuang. Negara*, vol. 6, no. 3, pp. 1087–1104, 2018.
- [7] P. R. Indonesia, "Instruksi Presiden Republik Indonesia Nomor 3 Tahun 2003 tentang Kebijakan dan Strategi Nasional Pengembangan E-Government," 2003. [Online]. Available: <http://eprints.uanl.mx/5481/1/1020149995.PDF>.
- [8] J. D. Twizeyimana and A. Andersson, "The public value of E-Government – A literature review," *Gov. Inf. Q.*, vol. 36, no. 2, pp. 167–178, 2019, doi: 10.1016/j.giq.2019.01.001.
- [9] J. Ahmad, "Metode Penelitian Administrasi Publik Teori dan Aplikasi," *Yogyakarta Gava Media*, 2015.
- [10] M. Kurfali, A. Arifoğlu, G. Tokdemir, and Y. Paçin, "Adoption of e-government services in Turkey," *Comput. Human Behav.*, vol. 66, pp. 168–178, 2017, doi: 10.1016/j.chb.2016.09.041.
- [11] F. Sá, Á. Rocha, and M. P. Cota, "Potential dimensions for a local e-Government services quality model," *Telemat. Informatics*, vol. 33, no. 2, pp. 270–276, 2016, doi: 10.1016/j.tele.2015.08.005.
- [12] A. Alipour, A. Farmani, and A. Mir, "High Sensitivity and Tunable Nanoscale Sensor Based on Plasmon-Induced Transparency in Plasmonic Metasurface," *IEEE Sens. J.*, vol. 18, no. 17, pp. 7047–7054, 2018, doi: 10.1109/JSEN.2018.2854882.
- [13] A. N. Rahmanto and C. H. A. Dirgata, "The implementation of e-government through social media use in local government of Solo Raya," *2018 Int. Conf. Inf. Commun. Technol. ICOI ACT 2018*, vol. 2018-Janua, no. 83, pp. 765–768,

- 2018, doi: 10.1109/ICOIACT.2018.8350763.
- [14] A. Tahir, *Kebijakan Publik dan Transparansi Penyelenggaraan Pemerintahan Daerah*. 2011.
- [15] A. Salle, "Makna transparansi dalam pengelolaan keuangan daerah," *J. KEUDA*, vol. 1, no. 1, pp. 1–19, 2016, [Online]. Available: <https://ejournal.uncen.ac.id/index.php/KEUDA/article/view/740/675>.
- [16] M. P. Yenti, A. Yentifa, and R. Mustika, "Analisis Pengaruh Akuntabilitas Dan Transparansi Pengelolaan," *Akunt. Manaj.*, vol. 13, no. July, pp. 59–75, 2019.
- [17] S. L. Y. Cheah and Y. P. Ho, "Effective industrial policy implementation for open innovation: The role of government resources and capabilities," *Technol. Forecast. Soc. Change*, vol. 151, no. May 2019, p. 119845, 2020, doi: 10.1016/j.techfore.2019.119845.
- [18] R. Nulhusna, P. I. Sandhyaduhita, A. N. Hidayanto, and K. Phusavat, "The relation of e-government quality on public trust and its impact on public participation," *Transform. Gov. People, Process Policy*, vol. 11, no. 3, pp. 393–418, 2017, doi: 10.1108/TG-01-2017-0004.
- [19] Heryanto Monoarfa, "Efektivitas dan Efisiensi Penyelenggaraan Pelayanan Publik: Suatu Tinjauan Kinerja Lembaga Pemerintahan," *J. Pelangi Ilmu*, vol. 5, 2012, [Online]. Available: <http://ejournal.ung.ac.id/index.php/JPI/article/view/891/831>.
- [20] S. O. Oginni and J. N. Moitui, "Social Media and Public Policy Process in Africa," *Consilience*, no. 14, pp. 158–172, Sep. 2015, [Online]. Available: <http://www.jstor.org/stable/26188747>.
- [21] S. Roengtam, A. Nurmandi, D. N. Almarez, and A. Kholid, *Does social media transform city government? A case study of three ASEAN cities: Bandung, Indonesia, Iligan, Philippines and Pukhet, Thailand*, vol. 11, no. 3. 2017.
- [22] X. Gao and J. Lee, "E-government services and social media adoption: Experience of small local governments in Nebraska state," *Gov. Inf. Q.*, vol. 34, no. 4, pp. 627–634, 2017, doi: 10.1016/j.giq.2017.09.005.
- [23] K. A. Vakeel and P. K. Panigrahi, "Social media usage in E-government: Mediating role of government participation," *J. Glob. Inf. Manag.*, vol. 26, no. 1, pp. 1–19, 2018, doi: 10.4018/JGIM.2018010101.
- [24] T. A. Bryer and S. M. Zavattaro, "Social Media and Public Administration," *Adm. Theory Prax.*, vol. 33, no. 3, pp. 325–340, Sep. 2011, doi: 10.2753/ATP1084-1806330301.
- [25] A. Tursunbayeva, M. Franco, and C. Pagliari, "Use of social media for e-Government in the public health sector: A systematic review of published studies," *Gov. Inf. Q.*, vol. 34, no. 2, pp. 270–282, 2017, doi: 10.1016/j.giq.2017.04.001.
- [26] APJII, "Penetrasi & Profil Perilaku Pengguna Internet Indonesia," 2018. [Online]. Available: <https://apjii.or.id/survei2018s/download/TK5oJYBSyd8iqHA2eCh4FsGELm3ubj>.