Using the Eisenhower Matrix to Identify Open Government Data Parameter Towards Information Disclosure in Indonesia

Herma Adistyarini[1]*, Catur Apriono[2]
[1,2]Department of Electrical Engineering, Faculty of Engineering, University of Indonesia
[1,2]Jalan Salemba Raya no. 6, Central Jakarta
[1]Jalan Medan Merdeka Selatan No. 149, Jakarta
*Email : [1]herma.adistyarini@ui.ac.id

ARTICLE INFORMATION

Received on 8 May 2024
Revised on 12 June 2024
Received on 24 July 2024

Keywords:
Data for OGD
Data Openness
Eisenhower Matrix
Open Government Data

ABSTRACT

The openness of government data is considered essential and is an influential innovation in society to prevent corruption by increasing the transparency of information and data. One of the drivers for the emergence of Open Government Data (OGD) is the Industrial Revolution 4.0 era, which has influenced all aspects of life with all technological advances. Society needs open information to support and monitor the running of Government. However, it still needs to be determined whether the published OGD data is actual data or only data presented to cancel obligations to protect certain powers. From here, the author wants to conduct a study on OGD parameters using the Eisenhower matrix after reviewing several experts in the telecommunications sector as a basis for identifying parameters for the openness of information and government data in Indonesia. From the results of the analysis that we have carried out, it is found that government support is the highest parameter, followed by other parameters, namely policy, data transparency in the OGD portal, and the participation of citizens as the most crucial support in supporting the implementation of quality and quality OGD data publication in Indonesia. So, the final aim of this study is to provide a future view for all policies that will be made by the Government related to OGD to include all parameters that support data transparency that can be used optimally by the general public so that actual data publication is achieved that does not protect authority or specific power

1. Introduction

Open Government Data (OGD) is anticipated as data produced by increasing participation, focusing on data transparency, and innovation in collaboration between government and society (Wang & Shepherd, 2020). OGD itself is open data that can be viewed as a process of data innovation that requires new collaboration methodologies and changes the relationship between government and citizens (Linders, 2012; Sieber & Johnson, 2015; Wang & Lo, 2016). OGD data is created and made available by the government, offered under a reusable, human-readable, machine-understandable license, as well as, delivered without separation and cost to the public at large (McBride, 2020) and usually often takes the form of a site or administration that the general public can access. A study conducted by the Open Knowledge Foundation called the Global Open Data Index (GODI) shows that open data means that it can be freely used, modified, and shared by anyone for any purpose, and the data must be able to be downloaded online at no cost (Open Knowledge Foundation , 2017).

Open government data (OGD) portals are popping up around the world at various levels of government, including local, state, and federal levels, with the goal of increasing data accessibility and availability. This expansion in OGD encouragement occurred due to several factors, including increasing legal prerequisites for releasing information in open organizations (Janssen, 2011), following peace agreements such as the Open Government Association (OGP) (Wilson, 2020), awareness of the importance of the benefits of OGD (Honks et al., 2017), or because of increased interest in OGD at the regional level (Kassen, 2019). Despite the fact that the availability of OGD is increasingly widespread throughout the world, it needs to be supported by the availability of data that can be used and changed, not just published. (Janssen et al., 2012). Publication of data must be accompanied by a particular framework equipped to handle information on a platform that is easy to use and understand; lowering existing barriers will increase the use of information that the general public can digest. However, the realization is that open data can actually allow someone in power to "pretend" to be open. Therefore this data relates to what can be done with that data (Schnell, 2020).

1.1. *OGD parameters in Europe*

In Europe, the European Information Gateway (EDP) directs an annual assessment of public open information gateways. EDP actually resembles a telephone directory for OGD gateways in European countries. EDP brings together data sets and various portals that are collected in one place. The OGD initiative was evaluated in a European Information Gateway form report on open data (European Data Portal, 2020), which looked at four key indicators: portal use, portal features, sustainability, and data provision. The 2023 Open Data Maturity (ODM) Assessment carried out to measure the progress of European countries in the availability and reuse of public sector information includes four dimensions of open data maturity including (1) the level of development of national policies that promote open data, (2) features and data available on national data portals, (3) quality of metadata on national data portals, and (4) initiatives to monitor the reuse and impact of open data (European Union, 2023) which shows that the maturity level of national policies supports open data transparency is the highest so it needs to be paid attention to.

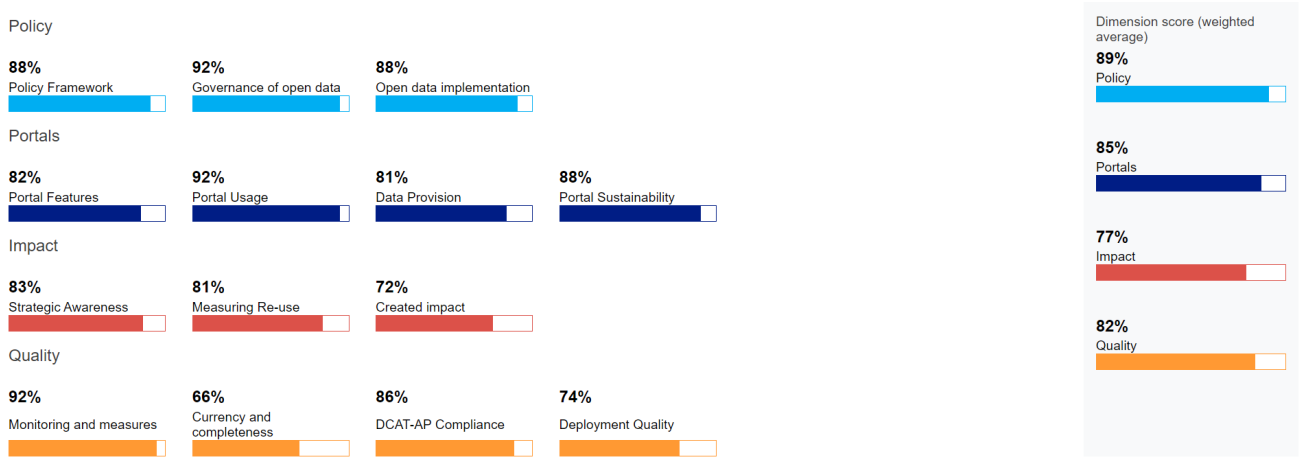

Figure 1. Overview of Open Data Maturity in Europe 2023 (European Union, 2023)

Other than that, other studies related to OGD in Denmark mention the challenges faced, including difficulties in seeing the value of data, sectoral egos between departments, distrust of data, lack of collaboration between organizations, different levels of data maturity between departments, and low leadership support for policies

data management (Nielsen et al., 2019). The level of political/institutional investment in open data portals and open data policies is a major factor (Chatfield & Reddick, 2017).

Theme	Challenges	#
Data value and overview	Short-term perspective on data usage	1
	Value from data initiatives are difficult to understand	2
	Lack of overview of existing data	3
Data practices and collaboration	Autonomy within the different departments	4
	Distrust toward data in social fields	5
	Lack of cross-organizational collaboration	6
Data capabilities and politics	Varying levels of data maturity across different departments	7
	Lack of top-level support for data initiatives	8
	Lack of political focus on data usage in municipal context	9

Figure 2. AnalysisWhy Governing Data Is Difficult: Findings from Danish Local Government (Nielsen et al., 2019)

1.2. *Parameters in Indonesia*

On the other hand, in Indonesia, in the OGD achievement model, the results of open information are only partiallyely determined by web quality, administration quality, data quality, online entertainment quality, and collaborative use of data. Public values which include efficiency, involvement, transparency, collaboration and trust are benchmarks for data user satisfaction. The success of OGD in developing countries is different from the success in developed countries; where Indonesia is a developing country, the success of OGD depends on the collective actions of citizens (Purwanto et al., 2017).

As summarized by Agung Indrajit (Indrajit, 2018) when discussing public information disclosure by the government, open government and open government data cannot be separated. The first step in practicing the idea of open government in Indonesia is to implement the policies and regulations that have been established in Indonesia, namely the 1945 Constitution, which provides the legal basis for implementing the principles of transparency and participation in general. In particular, the 1945 Constitution guarantees citizens' rights to communicate freely and obtain information, recognizes the rights to associate, assemble, and express opinions (Article 28), and stipulates that the state budget must be implemented openly and responsibly (Article 23-1). Apart from that, Law No. 14/2008 protects Public Information Openness, which guarantees citizens' rights to obtain information and encourages transparent, accountable, effective, and efficient government. This law also requires the establishment of an Information and Documentation Management Officer (PPID) office to store, record, and provide government information to the public.

Indonesia's involvement in the Open Government Partnership (OGP) is an initiative for the government to commit to increasing transparency, developing society, fighting corruption, and implementing new technology to strengthen good governance (Indrajit, 2018). Indonesia then followed up by launching the Open Government Indonesia (OGI) movement to achieve the Economic Progress Goals (SDGs), involving the community, with the ultimate goal of implementing more effective public policies through a national open government action plan. The government's efforts are to increase public participation in implementing open data and e-government commitments. To achieve this effort, government data governance that is accurate, open, and operable must be improved to obtain the expected data in One Data Indonesia (SDI), which is a work to provide reliable, responsible, and up-to-date information with build a set of administrative data that can be used as a source of perspective in every strategy and its execution in accordance with Public Openness Law no. 14 of 2008 (Maulia, 2021).

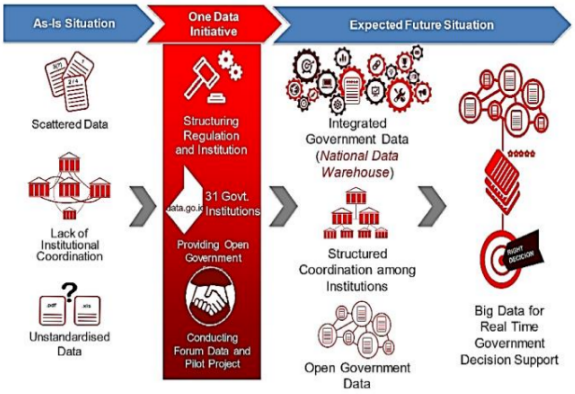

Figure 3. Current Conditions and Expected Conditions of SDI in the Future (Nugroho, 2017)

In general, Indonesia needs help in making general interpretations specific, ensuring services/organizations are accountable for transparency, and limiting cooperation in the administrative and legal fields that support the progress of open government change. These difficulties suggest that the Indonesian Government needs to find a way to create an "open state" that will allow for collaboration among the head of state, council, legal executive, and various levels of Government on open government issues to foster a broader and more integrated plan. To assist with this methodology, the central government also needs to develop a public strategy regarding open government to assist in the change to open government and increase public commitment to changes in the current public area (OECD, 2016).

Implementing Open Government Information (OGI) in various countries has encountered different difficulties. Open data should not only be used by institutions within their organizations but should also be used by the general public (Maulia, 2021). The open government information activity plan, includes data presentation, council information, public cooperation, and delivery of public assistance. Data inconsistencies caused by increasing volumes of data from multiple sources need to be identified and resolved to ensure that correct and trustworthy data is used to make decisions. Therefore, a more in-depth study is needed to determine parameters related to OGD, which includes the role of government transparency in data published through the OGD portal. This study can be used as a basis for consideration in making policies for implementing OGD in the era of information openness in the Industrial Revolution 4.0, which contains transparent and actual data without interference from authorized or powerful parties.

2. Literature review

2.1. *Theoretical Concepts*

OGD coordinators, facilitators, influencers, accomplices, and members are highly dependent on the assistance of the surrounding state administration. Public agencies produce a wide variety of information. However, they often focus more on increasing accessibility and increasing acceptability than on disclosing information that is important for the development of data, archives, and other types of information. In many countries, workplaces will broadly view their data as a product for which they will be paid. Information creation typically forms the basis of public efforts and is regularly enforced by an infrastructure of legitimate restrictions (Dekkers et al., 2006). Regardless of how OGD initiatives are designed and implemented, the public sector will likely continue to be the primary funder. Legislative bodies are the primary producers of public sector data and information, so governments tend to assume responsibility for establishing quality standards (Ubaldi, 2013). In a world of rapid impact, and taking into account the processes that take place with sharpness and monetary stability, today's complex social issues cannot be handled by legislative bodies alone or by the business sector

alone but by diverse organizations and associations or nations are also needed (Felten et al., 2009). A more significant role for the community in formulating government strategy and implementation is an essential mainstay in open government. It is a goal in Indonesia's critical drafting report and the Open Government Activity Plan. Participatory policymaking and the delivery of public assistance work based on the regulatory nature of government, aligning government targets with citizens' needs, and increasing public trust in open government (OECD, 2016).

The support of the Indonesian Government and the role of citizens in Open Government are:

a. In building a culture of integrity in the public sector by regulating citizen involvement in anti-corruption activities through the role of watchdog in three main areas, namely involvement in the policy cycle, supervision and accountability, and increasing awareness. Examples of forums for such supervision are programs run by the Corruption Eradication Commission (KPK) for whistleblowers, other corruption eradication programs, namely LAPOR!, the Ombudsman Office, and complaint services.
b. In using ICT towards digital transformation, the Government has recognized the potential of OGD. The Indonesian government has succeeded in producing digital public services and disseminating data collected using public funds to increase transparency, accountability, integrity and performance of the public sector through the Indonesian open data center portal. For example, the Ministry of Communication and Information has developed the Radio Frequency Spectrum Dashboard (Sidia) for transparency in the use of the radio frequency spectrum in Indonesia as well as the existence of Online Single Submission in public services to reduce direct interaction between business actors and government officials in processing permits.

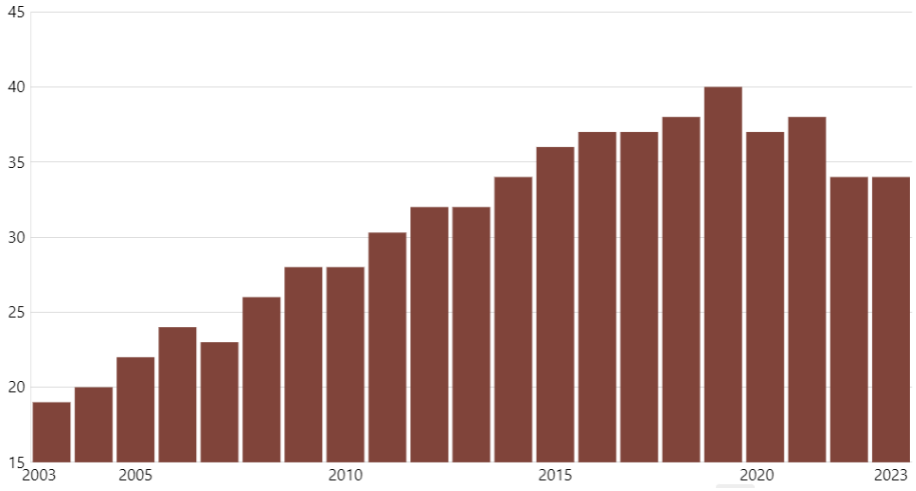

Figure 4. Corruption Perception Index in 2023 (Transparency International, 2023)

According to the Transparency International Report, in the 2023 Corruption Perception Index, Indonesia scored 34 points out of 100, ranking 110th out of 180 countries. This figure remains from 2022, but the ranking obtained has dropped further to 115, indicating that Indonesia continues to experience severe challenges in fighting corruption. The existence of this corruption-prone trend shows that public complaints have proven to be strong in ensnaring corruptors, which indicates that the Government has succeeded in implementing OGD through a complaint system (Pusat Edukasi Anti Korupsi, 2023).

On the other hand, based on the Open Data Barometer report, organized by the World Wide Web Foundation, can provide a general picture of OGD readiness from around the world (Open Data Barometer, 2018). The Open Data Barometer examines these categories in 30 selected countries. It focuses on open data implementation, as

well as the impact of emerging readiness (countries that have signed open data charters). Where the division of 30 countries into 3 groups, namely:

a. The green zone (champion) indicates the country with the highest score above 65 and with a balance between the scores on the open data readiness, implementation and impact sub-indices.
b. The yellow zone (contenders) indicates countries that have not passed the 65 point threshold and remain far behind the first group. They also lack strong evidence on the impact component
c. Red zones (stragglers) indicate countries that appear to have stagnated, have made little or no progress in five years and have serious weaknesses in at least one of the readiness, implementation or impact components

Table 1. Open Data Barometer scores for Open Data Charter adopters and G20 members (minus EU) - Champions, Contenders and Stragglers groups on green, yellow or red background respectively

GOVERNMENTS AND GROUPS	TOTAL SCORE (out of 100)	TOTAL SCORE CHANGE (since 1st Ed.)	READINESS (out of 100)	IMPLEMENTATION (out of 100)	IMPACT (out of 100)	G20 MEMBER	CHARTER ADOPTER
Canada	76	18	86	87	55	✓	✓
UK	76	-4	83	89	57	✓	✓
Australia	75	17	79	84	62	✓	✓
France	72	17	84	77	55	✓	✓
South Korea	72	25	82	67	67	✓	✓
Mexico	69	33	79	67	62	✓	✓
Japan	68	24	78	68	58	✓	✗
New Zealand	68	5	79	72	52	✗	✓
USA	64	-11	79	76	37	✓	✗
Germany	58	2	76	72	27	✓	✗
Uruguay	56	23	71	70	28	✗	✓
Colombia	52	25	69	60	28	✗	✓
Russia	51	10	62	59	32	✓	✗
Brazil	50	15	63	56	30	✓	✗
Italy	50	8	61	61	27	✓	✓
India	48	16	64	49	32	✓	✗
Argentina	47	14	66	56	20	✓	✓
Ukraine	47	25	60	52	28	✗	✓
Philippines	42	19	54	42	30	✗	✓
Chile	40	2	54	55	12	✗	✓
Indonesia	37	17	49	45	17	✓	✗
South Africa	36	14	50	37	22	✓	✗
Paraguay	34	15	41	45	15	✗	✓
China	31	15	44	38	10	✓	✗
Costa Rica	31	1	48	43	3	✗	✓
Turkey	31	5	33	53	7	✓	✗
Panama	30	10	47	42	0	✗	✓
Guatemala	26	2	36	37	5	✗	✓
Saudi Arabia	25	12	40	32	3	✓	✗
Sierra Leone	22	11	33	23	10	✗	✓

Source : (Open Data Barometer, 2018)

2.2. *Benefits and impacts of OGD*

Successful implementation of Open Government initiatives and policies depends on a solid institutional and legal framework. These structures create a rationale for collaboration equally across services/organizations, and also upwards at local government level. The benefits of open government will be available to various institutions and stakeholders as the existing framework in Indonesia improves (OECD, 2016). And it also explains the six main benefits of OGD, namely transparency and accountability, facilitating access to government data, supporting innovation, improving government services, operational benefits, and encouraging participation (Ibrahim et al., 2021).

On the other hand, according to the Executive Summary of the Open Data Barometer, a number of trends that should be of concern from 30 countries are the lack of open data sets, and it is very concerning that the majority of data sets remain closed to the public. This shows how little progress has been made in 10 years of open data. Then, the government still treats open data as a side project, whereas the government still treats open data as an isolated initiative. Governments must prioritize and invest in open data governance to support the

substantial changes needed to embed open approaches across agencies and departments. To show true leadership, governments must do more than promise to promote open data. Open data must be part of the way they govern

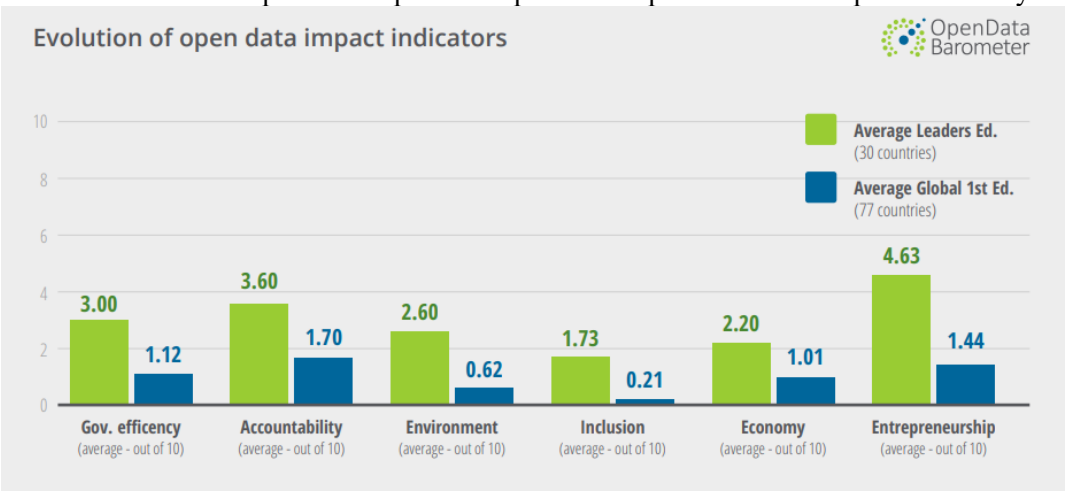

Figure 5. Open Data Barometer scores comparison for political, social and economic impact between the 30 governments in the Leaders Edition and the 77 governments in the first Open Data Barometer global assessment (average out of 10 - where 10 is the highest level of positive impact) (Open Data Barometer, 2018).

on a day-to-day basis, not just in one or two departments but across government. Otherwise, open data will continue to be published haphazardly and incompletely, as has been the case for the last decade (Open Data Barometer, 2018).

Since it involves several vital roles in the reuse/use of OGD, an easy-to-use portal like the Socrata portal is important content (Martin & Foulonneau, 2013), which legitimately suggests that usable and easier-to-understand gateways will likely result in higher levels of significant value creation, meaning public value will be created by portals with fewer data sets but more relevant and user-friendly content than portals with larger data sets but less user-friendly content (McBride, et al., 2020; Luthfi & Janssen, 2020).In this case, an OGD gateway should not only be concerned with providing a wealth of information but should also assist clients in finding the information they need or need.

It's evident that information and communications technology (ICT) plays a pivotal role in the growth of open data governance (OGD), if we consider its prerequisites. ICT empowers OGD by not just facilitating and distributing content but also by revealing information trading norms that encourage the free use or embedding of data in different packages. This leads to the enhancement of existing intelligence within the system, an increase in the timeliness of reporting, and other advantages. This transformative power of ICT in OGD should inspire optimism about the future of open data governance (Ubaldi, 2013).

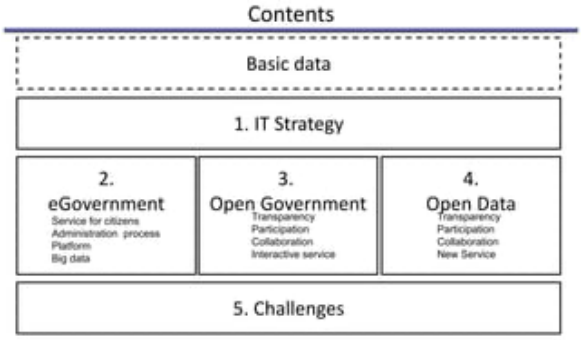

Figure 6. ICT and OGD Framework (Kenji, 2017)

3. Method

Open Government Data, which will be transparently implemented in Indonesia, and having data that is useful for the specific interests of citizens is essential to study and requires Government involvement in monitoring and evaluating the implementation of OGD both in the form of portals and other data availability. The question that will arise is, "What is the government's role in implementing this?" or "Are existing policies appropriate and supportive of the continuation of OGD in Indonesia?"This research was conducted using qualitative data collection methods through several methods, including:

a. Questionnaire and interview methods to collect information regarding various desires, needs, points of view, beliefs and experiences, parameters that are suitable for implementing OGD and the relevance of the highest urgency in Indonesia. In this activity, a questionnaire was delivered to government respondents who had implemented OGD and telecommunications users as OGD users.
b. Library/literature study is a review of statutory regulations, scientific journals, scientific articles, books, dictionaries, encyclopedias, or research/study results related to OGD so that obstacles and appropriate policies can be found to be implemented. This literature review provides input and can also be used as a useful research basis for further analysis.

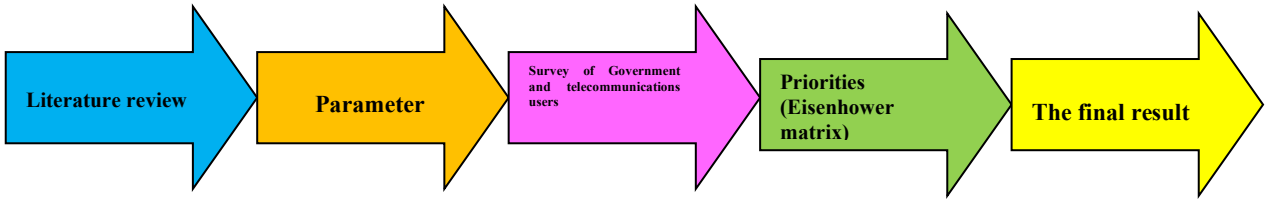

Figure 7. Research Methodology Flow

The methodological flow of the research carried out is:

a. Literature review, namely collecting journal sources or references for researchers to use as a basis for writing. Through a literature review, the author was able to obtain valid and reliable information and data which was then used as a reference for making this research in terms of what parameters support OGD in several countries. From the perspective of studies in several countries, it appears that indicators of readiness, implementation and impact of OGD in each country must be considered. The parameters that represent the most prominent ones are policy, data quality, data transparency, quality portals, openness of all data sets, and citizen participation.
b. Determining the parameters from the results of the literature review that will be used to carry out the sampling questionnaire method in Indonesia is submitted to the Government and telecommunications users in general for a survey. The questionnaire method submitted contains a list of questions prepared with parameters related to policy, government support, data quality and transparency, OGD portal, access to technology and citizen participation in OGD where respondents are asked to provide choices of actions that must be carried out according to the level of urgency. matrix and expectations of each respondent in implementing OGD in Indonesia
c. Survey of sampling respondents by attaching Eisenhower matrix information to Officials of the Ministry of Communication and Information as the agency that publishes OGD and to telecommunications users who use the OGD portal which has been published and is anonymous with classificationin the level of urgency High urgency (1/Do), Medium Urgency (2/Plan), Low Urgency (3/Delegate), Very Low Urgency (4/Eliminate)

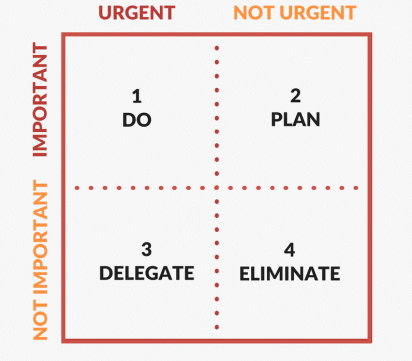

Figure 8. Eisenhower Matrix (BINUS University School of Information Systems, 2019)

d. Descriptive analysis by incorporating into the Eisenhower matrix method or also known as Urgent-Important with Matrix to decide and prioritize tasks based on the level of importance and urgency so that it can be determined which supporting parameters are the most important to pay attention to and follow up on or even parameters which ones do not need to be followed up because they do not have a big impact on the suitability objectives of implementing OGD in Indonesia.

Table 2. Training Activity Schedule

Research Activities	March			
	M1	M2	M3	M4
Literature review				
Determining Survey Parameters				
Survey				
Descriptive Analysis				

4. Results and Discussion

This research began with a literature study which obtained important findings related to OGD as follows:

Table 3. Findings that need to be discussed from the literature review

Category	Findings for Discussion	Reference source
OGD Regulations	1. Presidential Regulation Number 95 of 2018 Electronic Based Government System (SPBE) is the foundation for realizing effective, clean, responsible and transparent government as well as quality and reliable public administration to support Indonesia's digital transformation agenda, by seeking to increase data connectivity between agencies government [1][2]. 2. Meanwhile, no derivative regulations have been passed, namely Ministerial Regulations, Agency Regulations, and Agency Regulations that regulate Data Guardians and Data Producers at the central level [2]	[1] Thomas, E. (2020). One Indonesian Data: Towards Government Big Data. Jakarta: FGD on Government Big Data Readiness [2] Maulia Jayantina Islami, Implementation of One Indonesian Data: Challenges and Critical Success Factors (CSF), June 2021 [3] Anastasija Nikiforova, Keegan McBride, Usability of open government data portals: A user-centered usability analysis of 41 open government data portals, 2021 [4] European Data Portal, 2020, Open Data Maturity [5] OECD, Indonesian Open Government Study, Key Issues, 2016 [6] Mawanda, AH (2020). One Indonesian Data: Between Being and Not Being. Suarakarya [7] Fhikri Fhutera Yudan, Muhammad Arief Virgy, Implementation of Open Government
Implementation of OGD	1. OGD portals serve various key interactions between data providers and data users where they have very important subject s and vital uses [3] 2. The open data maturity study serves as a benchmark to gain insight into the progress that has been made in the field of open data in Europe, assessing the level of maturity based on four dimensions: policies, portals, impact and quality [4]	

Category	Findings for Discussion	Reference source
Government	1. To support an "open country" approach, the central government also needs to develop a national policy on open government data to support the reform and mainstreaming of open government and increase public involvement in current public sector reforms [5] 2. As one of the founders (OGP) and a leading member of the largest economy in ASEAN, Indonesia has shown interest in playing a leading role in spreading the principles and practices of open government throughout the world, with a focus on Southeast Asia [5] 3. Lack of government agencies appointed as Data Trustees and lack of prioritized data [6]	Data by the Bandung City Government (2021) [8] Ministry of State Secretariat. Presidential Regulation No.39 of 2019 [9] Felten, EW et al (2009), -Government Data and the Invisible Hand‖, Yale Journal of Law & Technology, Vol. 11, p. 160
Technology	1. Data generation technology is available but human resources still do not have the competence to process data [7]. 2. Data integration is difficult because there are thousands of data applications, lack of digital infrastructure readiness, Indonesia still does not have an integrated data center [2]	
Data Governance	1. Lack of implementation of a data collection process that involves the community and lack of public awareness of the importance of open data [7] 2. Several CSOs in Indonesia that are actively involved in open government issues are Transparency International-Indonesia (TII), which reviews policies, develops and tests open government performance using the Open Government Scorecard, an initial assessment of open government in Indonesia [5]. 3. Determining a data action plan, determining priority data, determining a data list that follows data standards and data interoperability [2] 4. Organizations are still unable to provide use cases that link data governance to value creation [2] 5. The implementation reference and guidelines for implementing SDI are contained in Presidential Regulation of the Republic of Indonesia no. 39 of 2019. This regulation states that to realize integrated evaluation, implementation, planning and control of development, data support is needed that is up-to-date, accurate, accountable, integrated, easily accessible and can be used together [8]. 6. Openness and transparency of government and private sector data needs to be rebuilt using the same requirements and can be accessed by the wider public [9]	
Citizen	1. Changes brought about by citizens becoming more engaged and knowledgeable, as well as the Indonesian Government's desire to increase efficiency and accountability in line with open government policies, have pushed the country to increase efforts in building a digital government [5]. 2. Civil society organizations (CSOs) in Indonesia have been actively involved in open government issues [5].	

From the literature review above, we can find several things that we need to determine which parameters need to be discussed and can be applied to create a policy and one of the important considerations to pay attention

to in the future so that the risks that arise can be anticipated or mitigated in the implementation of OGD in Indonesia.

Table 4. OGD parameters

Parameter	Sub-parameters
OGD policy or legal framework	A legal policy has been created for digital transformation, but there are no derivative regulations governing data integration at the central level.
OGD Portal	key interactions between data providers and data users, open data maturity based on policy, portals, impact and quality
Government Support	The need to develop a national policy on open government, lack of government agencies designated as Data Guardians, lack of prioritized data.
Technology Access	The need to increase HR competency in data processing, the difficulty of data integration because there are thousands of data applications, the lack of digital infrastructure readiness, the need for an integrated data center
Data quality and transparency	Lack of implementation of the data set creation process that involves the community, ignorance about the importance of open data, the need to determine a single data action plan, determine priority data, determine a data list that follows data standards and data interoperability, the need for One Data Indonesia (SDI).
	Commitment to open government involving the community and Civil Society Organizations (CSOs)

The results of filling out the survey for respondents as stated in the composition, diagram and mapping of the OGD survey results are as follows:

Figure 9. Graph of the composition of filling out the OGD implementation survey

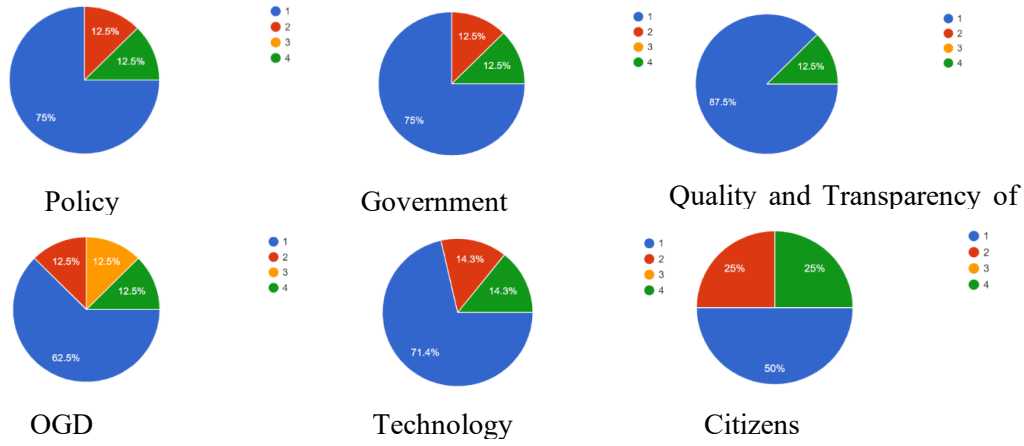

Figure 10. Chart for filling out the OGD implementation survey based on parameters

Table 5. Mapping into Urgency Levels

Survey Filler	OGD policy or legal policy	OGD Portal	Government Support	Technology Access	Data quality and transparency	Citizen participation
From the Government's Side	1	1	1	3	1	4
From the Government's Side	1	1	1	1	1	1
From the Government's Side	1	1	1	1	1	1
From the Government's Side	2	2	1	2	2	2
From the Government's Side	1	1	1	1	1	1
From the perspective of telecommunications users in general	1	1	1	1	1	2
From the perspective of telecommunications users in general	4	4	4	4	4	4
From the perspective of telecommunications users in general	1	1	1	1	-	1

The survey results that have been entered into the Eisenhower matrix can be classified into levels of urgency:

- High urgency (1/Do) : Immediate and Important
- Medium Urgency (2/Plan) : Not urgent but important
- Low Urgency (3/Delegation) : Immediate but not important
- Very Low Urgency (4/Omit) : Not urgent and not important
-

Table 6. Results of filling in each parameter through the survey

Parameter	Evaluation		Urgency Level
	Government	Telecommunication users	
OGD policy or legal framework	1	2	2 (Plan)
OGD Portal	1	2	2 (Plan)
Government Support	1	1	1 (Do)
Technology Access	2	2	2 (Plan)
Data quality and transparency	1	2	2 (Plan)
Citizen participation	1	2	2 (Plan)

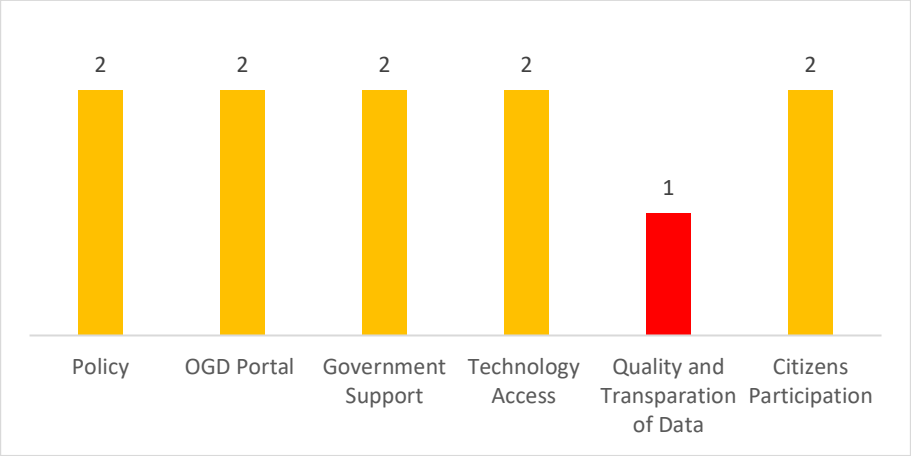

Figure 11. Level of Urgency for OGD Implementation Level of Urgency for OGD Implementation

From the results of the level of urgency above, it is evident that the Government and telecommunications users in general have produced identification data from the parameters that have been provided. The Eisenhower Matrix is interpreted inversely to the value shown, meaning that the lower the value of the level of urgency, the higher the level of urgency that must be followed up immediately. It can be seen from Figure 11 that the result parameters are data quality and transparency, which have the highest level of urgency and medium level of urgency; there is no low or very low level of urgency, so there are no parameters that need to be eliminated or ignored. The suggestions and input from the survey results reemphasize the paramount importance of support so that OGD can run, not only in terms of regulations/policies and their derivatives but also in terms of funding, infrastructure development, data integration, data portal development, data governance, and socialization of its use.

Survey results that need to be followed up are:

1. High level, needs to be stricter supervision of the transparency of data provided in data collection, data processing, data analysis, data access and data governance, especially in relation to public service providers. Quality data that is suitable for access and is open to the entire community and is not just published but contains elements of integrity and accountability that can be accounted for in its accuracy.
2. Medium level, representatives from the Government and telecommunications users in general own input in the form of importanceregulations as a legal policy for OGD to ensure OGD can run within adequate legal corridors and receive support from various agencies, stakeholders and the community. The government needs to synergize this OGD policy so that it does not conflict with personal data protection regulations, user friendly and interactive portal quality, community participation in using OGD, on the other hand providing input to the government in the form of crowdsourcing, and proposals for providing a public consultation space first.

Apart from that, feedback obtained from respondents which can be used as a basis or input in the implementation of OGD includes:

Table 7. Respondents' feedback on the implementation of OGD in Indonesia

Parameter	Feedback
OGD policy or legal framework	1. OGD's orientation is on output and data protection goals, and it is necessary to establish PICs in all ministries/agencies. 2. Regulations as the legal policy for OGD are very important to ensure OGD can run within adequate legal corridors and receive support from various agencies, stakeholders and the community. RI Presidential Regulation No. 39 of 2019 concerning One Indonesian Data can be used as an initial basis

Parameter	Feedback
	for collecting and processing integrated government data to be sorted and opened to people who need it, both in terms of business actors, researchers, academics, and between government agencies themselves. The government needs to synergize this OGD policy so that it does not conflict with personal data protection regulations, so that the data that is opened can provide benefits without violating other regulations. It is hoped that the OGD legal policy can eliminate sectoral silos or egos regarding data ownership so that OGD can produce data synergies from various agencies that can provide more comprehensive information. 3. to be more transparent in the future in managing data to the public 4. Open Government Data must be divided into several stages, starting from initiation, involvement, to maturity. And must consider solving problems in society 5. Law 14 of 2008 generally regulates this, there should be a KM/PM that regulates OGD so that the data that can be known is in accordance with the principles of propriety.
OGD Portal	1. User friendly and interactive 2. The One Data Indonesia Portal (data.go.id) is a form of the government's commitment to data openness. However, each agency still has its own data portal. For this reason, it is necessary to harmonize data so as not to confuse the public if differences in data are found. It would be better if the One Data Indonesia Portal became the main reference for anyone who needs government data. The data portal must also be attractive and informative and present up-to-date data, because often the existing data content is not updated regularly. 3. The OGD portal must have integrated principles using middleware to facilitate data transactions in each ministry/institution/region. 4. This Portal link can be made as simple as possible so that the public/operators can know clearly
Government Support	1. Government support is also very important so that OGD can run, not only in terms of regulations/policies, but also in terms of funding, infrastructure development, data integration, data portal development, data governance, and socialization of its use. The construction of a National Data Center can also be part of government support in integrating data between government agencies. 2. Support in the form of regulations and policies that have a roadmap so that they can provide certainty for the development of Open Government Data 3. Even though Law 14 of 2008 generally regulates this, there needs to be a PM/KM that regulates OGD.
Technology Access	1. The implementation of OGD also needs to be supported by adequate technology, not only access to technology to access data portals, but also from data collection, data processing, data analysis, to data access and governance. The government needs to look at the most optimal technology in implementing OGD, by involving data practitioners and academics as well as competent citizens to develop this OGD. 2. Use of middleware, customizable programming languages 3. Access to good technology can be through the website
Data quality and transparency	1. Accuracy and privacy 2. The quality of the data presented in OGD will determine public trust in utilizing OGD. For this reason, it is necessary to ensure that the data presented is quality and reliable. Apart from that, the inclusion of data sources, data collection and analysis methodology must also be presented transparently so that the public can understand the data in OGD and utilize it according to their needs. 3. Data quality is necessary to ensure output from open government data. Starting from basic data to technical data can be standardized (if possible). 4. This good quality and transparency is general.
Citizen participation	1. The government needs to encourage community participation in the development of OGD at various levels. Practitioners, experts and academics can be invited to design and develop good OGD starting from the aspects of planning, technology selection, funding, management and utilization. Meanwhile, other communities can be encouraged to proactively use and provide input and suggestions in the development and use of OGD, including making corrections if discrepancies are found in the data presented.

Parameter	Feedback
	2. The public can take part in using OG, while providing feedback to the government in the form of crowdsourcing. 3. It is recommended that before implementing OGD, a Public Consultation room is provided first

From the survey results, representatives from the Government of one of the Ministries/Institutions and telecommunications users, in general, have represented several parameters whose level of urgency really needs to be followed up immediately, namely regarding the quality and transparency of data and the importance of government support which means full support for the smooth implementation of OGD in Indonesia both in terms of regulations, infrastructure, data properties, and community participation.

5. Conclusions

The implementation of Open Government Data in Indonesia actually already exists and has been carried out several years previously. However, there are still several problems that arise related to the policies or regulations that should underlie OGD, namely that derivative regulations have not been made that regulate integrated data or One Indonesian Data, which arise due to the large number of applications that appear in thousands in Indonesia. Apart from that, there is still a lack of public participation in creating the OGD portal because people still need to fully understand the importance of Open Data in digital transformation for an open country. The existence of the existing portal is still limited to information that displays general data that has yet to reach the goals desired by the community and needs to be more user-friendly and interactive. Transparency of data that has not been protected and displayed on the OGD portal still needs to be optimized.

Our recommendations for improving the implementation of OGD in Indonesia are centered around a collaborative approach. We propose policy reforms, capacity development initiatives, and public awareness campaigns to increase participation in OGD initiatives. We also advocate for fostering partnerships between government agencies, civil society organizations, and the private sector, recognizing the value of each stakeholder's contribution. On the OGD Portal side, we prioritize a user-centered design, emphasizing the importance of designing OGD portals that are easy to use, interactive, and aligned with the needs of various user groups. We also encourage feedback from end users, recognizing their role in improving the portal's usability and effectiveness.

From the results of our research, it is felt that further research is needed on the impact and readiness of infrastructure and the need to collect data on the potential consequences of existing challenges, taking into account short-term and long-term implications facing advanced technology and supporting digital transformation and literacy so that all people understand and are socialized with Open data or OGD in Indonesia. This can be done through reviewing the latest literature and benchmarking the implementation of OGD in other countries that have the latest technology and policies.

6. Acknowledgments

This journal article was written by Herma Adistyarini, a Masters Student in Electrical Engineering based on the results of the research "Responding to the Era of Data Openness and Policy Solutions in Indonesia" and would like to thank our supervisor, Mr. Catur Apriono, Lecturer at the Faculty of Engineering, University of Indonesia.

References

A. Luthfi, M. Janssen, J. Crompvoets July). Stakeholder Tensions in Decision-Making for Opening Government Data, Springer, Cham (2020), pp. 331-340. https://doi.org/10.1007/978-3-030-52306-0_23

Anastasija Nikiforova, Keegan McBride, Open government data portal usability: A user-centred usability analysis of 41 open government data portals, 2021. https://doi.org/10.1016/j.tele.2020.101539

B. Ubaldi, Open Government Data: Towards Empirical Analysis of Open Government Data Initiatives, OECD Working Papers on Public Governance, No. 22 (2013).

Chatfield, A. T., & Reddick, C. G. (2017). A longitudinal cross-sector analysis of open data portal service capability: The case of Australian local governments. Government Information Quarterly, 34(2), 231-243. https://doi.org/10.1016/j.giq.2017.02.004

Commission, http://ec.europa.eu/information_society/policy/psi/docs/pdfs/mepsir/final_report.pdf.

Dekkers, G. et al (2006), -Measuring European Public Sector Information Resources‖, European

European Data Portal, 2020, Open Data Maturity, https://www.europeandataportal.eu/en/impact-studies/open-data-maturity, accessed: 10.09.2020

Felten, E.W. et al (2009), -Government Data and the Invisible Hand‖, Yale Journal of Law & Technology, Vol. 11, p. 160, http://ssrn.com/abstract=1138083

Fhikri Fhutera Yudan, Muhammad Arief Virgy, Implementation of Open Government Data by Bandung City Government (2021)

Hendrawan, Arie. (2019). Open Government: Development and Future. Accessed at https://nasional.sindonews.com/read/1388938/18/open-governmentperkembangan-dan-masa-depan-1553196647 on 17 October 2019 at 15.04 WIB.

Ibrahim Mutambik, Anastasija Nikiforova, Abdullah Almuqrin, Yulong David Liu, Ahmad Floos, Taha Omar, 2021. Benefits of Open Government Data Initiatives in Saudi Arabia and Barriers to Their Implementation

Indrajit, A. (2018). One Data Indonesia to Support the Implementation of Open Government Data in Indonesia. In B. van Loenen, G. Vancauwenberghe, & J. Crompvoets, Open Data Exposed (pp. 247-267). The Hague: T.M.C. Asser Press. https://doi.org/10.1007/978-94-6265-261-3_13

Janssen, K., 2011. The influence of the PSI directive on open government data: An overview of recent developments. Govern. Inform. https://doi.org/10.1016/j.giq.2011.01.004

Janssen, M., Charalabidis, Y., Zuiderwijk, A., 2012. Benefits, adoption barriers and myths of open data and open government. Inform. Syst. Manage. 29 (4), 258-268. https://doi.org/10.1080/10580530.2012.716740

Kassen, M., 2019. Open data and e-government-related or competing ecosystems: a paradox of open government and promise of civic engagement in Estonia. Inform. Technol. Develop. 25 (3), 552-578. https://doi.org/10.1080/02681102.2017.1412289

Hiramoto, Kenji, 2017, E-Government, Open Government and Open Data in Japan

K. McBride, M. Olesk, A. Kütt, D. Shysh Systemic change, open data ecosystem performance improvements, and empirical insights from Estonia: A country-level action research study, 2020. https://doi.org/10.3233/IP-190195

Linders, D. (2012). From e-government to we-government: Defining a typology of citizen co-production in the age of social media. Government Information Quarterly, 29(4), 446-454. https://doi.org/10.1016/j.giq.2012.06.003

Maulia Jayantina Islami, One Data Indonesia Implementation: Challenges and Critical Success Factors (CSFs), June 2021

Mawanda, A. H. (2020). One Data Indonesia: Between There and Nothing. Suarakarya. Retrieved from https://www.suarakarya.id/detail/111198/Satu-Data-Indonesia-Antara-Ada-Dan-Tiada

McBride, K., 2020. Open Government Data Driven Co-Created Public Services (Doctoral dissertation). Available at: https://digikogu.taltech.ee/et/Item/e75082ae-9115-48c0-9526-09466e8a6698. Doctoral dissertation.

Nielsen, O. B., Persson, J. S., & Madsen, S. (2019). Why Governing Data Is Difficult: Findings from Danish Local Government. International Federation for Information Processing, 1, 15-29. https://doi.org/10.1007/978-3-030-04315-5_2

Nugroho, Y. (2017). After Data Synchronising and Sharing - What Do We Learn? Lesson from Satu Data. Jakarta: Kantor Staf Presiden RI

OECD, Indonesia Open Government Study, Key Issues, 2016

Open Knowledge Foundation, 2017, Global Open Data index, Methodology, https://index.okfn.org/methodology/, accessed: 10.09.2020.

Open Data Barometer, 2018, Report - From promise to progress, https://opendatabarometer.org/leadersedition/report/, accessed: 10.09.2020.

Pusat Edukasi Anti Korupsi, 2023, Aksi Informasi

Purwanto, Arie; Jansen, Marijne; Zuiderwijk-van-Eijk, A. (2017). Towards an Open Government Data Success Model A case study from Indonesia. In Proceedings of the 17th European Conference on Digital Government. Delft University of Technology. Retrieved from http://pure.tudelft.nl/ws/files/23067045/Full_Paper_Revised_Arie_Purwanto.pdf

S. Schnell Vision, Voice, and Technology: Is There a Global "Open Government" Trend? Admin. Soc. (2020). https://doi.org/10.1177/0095399720918316

S. Martin, M. Foulonneau, S. Turkey 1-5 stars: Metadata on the openness level of open data sets in Europe, Springer, Cham (2013), pp. 234-245. https://doi.org/10.1007/978-3-319-03437-9_24

Sieber, R. E., & Johnson, P. (2015). Civic open data at a crossroads: Dominant models and current challenges. Government Information Quarterly, 32(3), 308-315. https://doi.org/10.1016/j.giq.2015.05.003

Thomas, E. (2020). One Data Indonesia: Towards Government Big Data. Jakarta: FGD on Government Big Data Readiness

Toots, M., Mcbride, K., Kalvet, T., Krimmer, R., 2017. In: Open data as enabler of public service co-creation: exploring the drivers and barriers. IEEE, pp. 102-112. https://doi.org/10.1109/CeDEM.2017.12

V. Wang and D. Shepherd, "Exploring the extent of openness of open government data - A critique of open government datasets in the UK," Government Information Quarterly, vol. 37, no. 1, p. 101405, 2020. https://doi.org/10.1016/j.giq.2019.101405

Wang, H., & Lo, J. (2016). Adoption of open government data among government agencies. Government Information Quarterly, 33(1), 80-88. https://doi.org/10.1016/j.giq.2015.11.004

Wilson, C., 2020. The socialisation of civic participation norms in government? Assessing the effect of the Open Government Partnership on countries' e-participation. Govern. Inform. Quarter., 101476. https://doi.org/10.1016/j.giq.2020.101476