



Satu data Indonesia (one Indonesian data) to actualize public information disclosure and efficacious process management in the Mojokerto city government

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ABSTRACT

The rapid advancement of information technology has an impact on governance management, including local government. As the recipient of public services, society desires information disclosure as a measure of local government performance. In response, the President of the Republic of Indonesia established the Satu Data Indonesia (SDI) program. This program creates a database containing all government-related data to streamline the current work system. The SDI database can be used as a resource in local government policymaking. As a result, by providing credible, accountable, and up-to-date data, this program is expected to respond to societal needs. Furthermore, information in the form of public data is hoped to be obtainable in a single location by anyone, at any time, and from any site. This study aims to discover how the One Data Indonesia (SDI) program helps the city government of Mojokerto share information with the public and manage processes well. The literature review method was used in this study. The result of this study shows that SDI implementation still faces numerous challenges. Each component of SDI implementation (data planning, data collection, data checking, and data distribution) has some issues.



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INTRODUCTION

Indonesia is currently a developing country with considerable economic potential. The role of the government and the community is critical in this regard. Today's society expects the government to be open to existing information. In addition to overseeing government performance, the community wishes to participate in regional and national planning and development. The government has enacted a law on public information disclosure to accommodate and protect the public.

Indeed, in addition to oversight, the public can participate in formulating public policies. Information technology is one of the most effective tools for achieving this. The government hopes that by utilizing information technology, it will be able to meet the public's information needs quickly. The Satu Data Indonesia (SDI) program was created to address this issue. The program is part of the Indonesian open government national action plan for 2018-2021, which outlines implementing government data management to increase data value as a basis for policymaking (Bappenas, 2017).

The Mojokerto City Government as a public servant, has various duties and obligations divided into multiple authorities, agencies, or other organizations. Mojokerto is a city in East Java, Indonesia's second-largest province, with a population of 132,434 people and an area of 20 km². With the diversity of organizations and existing data, it is frequently tricky for Mojokerto residents to obtain the information they require quickly and accurately. Refers to the meaning of the process, which is one or more activities that convert inputs into outputs (Chase et al., 2018). The SDI can change outcome through information technology, making it very efficient in assisting the government and society. The SDI is expected to solve the existing problems as the public can obtain accountable, up-to-date, easily accessible, integrated, and accurate data in one place.

The study's results Islami (2021) show that one of the problems with data planning is that priority data aren't set. Then, in part about gathering data, one of the problems is how hard it is to combine data. As for the data inspection part, problems still make it hard to follow the SDI principles. For example, data standards aren't met, metadata isn't consistent, and there isn't a data reference code,

meaning data overlaps and is hard to share. Also, the data dissemination part has problems with the readiness of the digital infrastructure, such as building an integrated data centre and making an application that all central and regional government institutions can use. There is also a problem with a lack of data competency.

Adiwinata's research (2019) found that the use of open data in DKI Jakarta has not been taken to its fullest potential. This makes institutions too rigid to change to a vertical structure, so responsibilities and policies are changed in a vertical direction. This doesn't work, though, because collaboration needs horizontal work or organization. The results of the study by Putri (2022) show that the growth of Indonesia's data is not only able to change research traditions to support research-based public policies, but it is also able to increase good practices in government, such as increasing public innovation, collaborative governance, and the reconciliation of political power and knowledge. This study aims to discover how the One Data Indonesia (SDI) program helps the city government of Mojokerto share information with the public and manage processes well.

RESEARCH METHODS

The literature review method was used in this study. To make interpretations of the literature, data screening was carried out (Creswell & Creswell, 2017). The primary goal of this literature search is to gather relevant information and determine how closely related the data is. The general procedure is as follows: Gathering existing sources of information and literature from various sources (books, internet, papers, etc.) related to this topic, reading and studying the material, summarizing the key points from the literature, and writing down and rearranging the crucial issues that have been translated in a structured way into a paper.

RESULTS AND DISCUSSION

Four main components of SDI implementation are identified, namely: 1) Data Planning, 2) Data Collection, 3) Data Examination, 4) Data Dissemination (Peraturan Presiden Republik Indonesia Nomor 39 Tahun 2019 Tentang Satu Data Indonesia, 2019). Furthermore, identifying obstacles in each component is carried out by mapping the challenges attached to each element.

Table 1 SDI Implementations Challenges

Data Collection	Data Planning	Data Checking	Data Distribution
Data is not standardized (metadata format, reference code), so that is difficult to share	There is no mechanism for monitoring the implementation of the SDI action plan	Not yet under SDI principles (one data standard, one metadata, data interoperability, reference code)	Suboptimal use of the SDI portal
Sectoral ego is one of the data asynchronous	Priority data has not been established, and no data list is available	There is no derivative regulation of the presidential law on SDI	Lack of digital infrastructure readiness
Inability to collect or coordinate data	Obscurity of data trustees	Unclear scope of authority for data trustees and data producers at the central and regional levels	Restriction on data access
			Data is not integrated and out of synchronization

Several essential points that can help overcome those obstacles include:

Data Collection

Easy-to-follow standardization policies (Abraham et al., 2019), Standardized, documented process and iterative methods for organizing data (Al-Ruithe et al., 2017), Clarity of open data

classification (Eropa, 2018), The dataset conforms to the technical framework (license, format, metadata, standards) and is published with a rating of at least three stars, such as CSV, JSON or XML (Alzamil & Vasarhelyi, 2019), In collaboration with public institutions (Wang & Shepherd, 2020), Collaboration (Sayogo & Yuli, 2018), Open Data Liaison Officer in every government organization, Effective governance and organizational framework for coordination (Mawanda, 2020), Strengthening multi-stakeholder forums through the issuance of comprehensive government decrees (OGP & Patra, 2020).

Data Planning

Focused Data Strategy (de Juana-Espinosa & Luján-Mora, 2019), Strategy with measurable milestones and outcomes, as well as clear outputs (OGP et al., 2020), Encourage the implementation of the Presidential Regulation on SDI in all policy sectors (OGP & Patra, 2020), Establish a precise coordination mechanism between government agencies in the process of preparing, implementing, and monitoring the action plan (OGP & Patra, 2020), Strong leadership and stakeholder commitment to adopting open data standards and data sovereignty (Sayogo & Yuli, 2018), Strategic awareness to monitor and measure the use of Open Data (OGP & Olesk, 2020), Effective governance structure, Clear Procedures and Process Data (Zhu, 2017), Clarity of data ecosystem in priority domain (Donker & Loenen, 2016).

Data Checking

Competency data (Sayogo & Yuli, 2018), capacity development: necessary support and resources for technical help through training and provision of the required expertise (Abraham et al., 2019), the success of OGD in developed countries depends on the ability and expertise of individuals who use OGD (Purwanto et al., 2020), public agencies are required to publish high-quality data supported by technical frameworks and open data standards and ensure cross-border interoperability (Nielsen et al., 2019), define data roles and responsibilities (Eropa, 2018), immediately ratify derivative regulations, namely ministerial regulations, institutional regulations, and agency regulations that regulate data proxy and data producers at the central level.

Data Distribution

Flexible data tools and technologies (Nikiforova & McBride, 2021), To ensure interoperability, open data linked to the national Open Data portal data.go.id must meet the Technical Framework requirements (standards, formats, metadata, and licenses), Provide application programming interface (API) link on data portal (Eropa, 2018), Features to monitor the quality and security of open data portals and enable interaction (Nielsen et al., 2019), Tools and mechanisms to improve the quality of available data (Nielsen et al., 2019), Build an integrated data center, in the form of one application that can be used by all central and local government institutions (Bayu, 2020), Data user satisfaction (Purwanto et al., 2020), The government needs to develop a precise inter-agency coordination mechanism to oversee the implementation of the beneficial ownership database and ensure strong collaboration with civil society to accelerate the realization of an open valuable ownership database after the initial implementation phase is complete (OGP & Patra, 2020).

Satu Data Informasi Kota Mojokerto (Satikomo) is an SDI application in Mojokerto city. It is big data that can be accessed at <https://satikomo.mojokertokota.go.id/>. The data displayed is divided into two categories: topic and organization. The topic menu contains ten options: (1) population, (2) health, (3) environment, (4) tourism and culture, (5) public works, (6) government, (7) education, (8) economy, (9) relationship and communication, and (10) social.

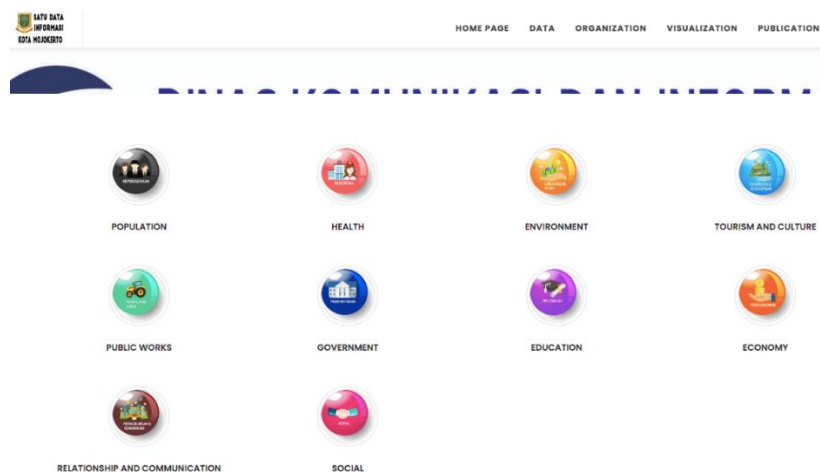


Figure 1 Display of Ten Satikomo Topics

There are 53 choices in the organization category, which include:

Table 2 Organizations presented in Satikomo

No	Organization Name	Total
1	Authority (Dinas)	12
2	Agency (Badan)	5
3	Inspectorate	1
4	Regional Representative Council Secretariat	1
5	Civil Service Police Unit (Satuan Polisi Pamong Praja)	1
6	Police	1
7	Penitentiary	1
8	District Court	1
9	Ministry of Religion	1
10	Hospital	1
11	Division (Bagian)	9
12	Subdistrict	3
13	Ward	16
Total		53

Source: (Pemerintah Kota Mojokerto, n.d.)

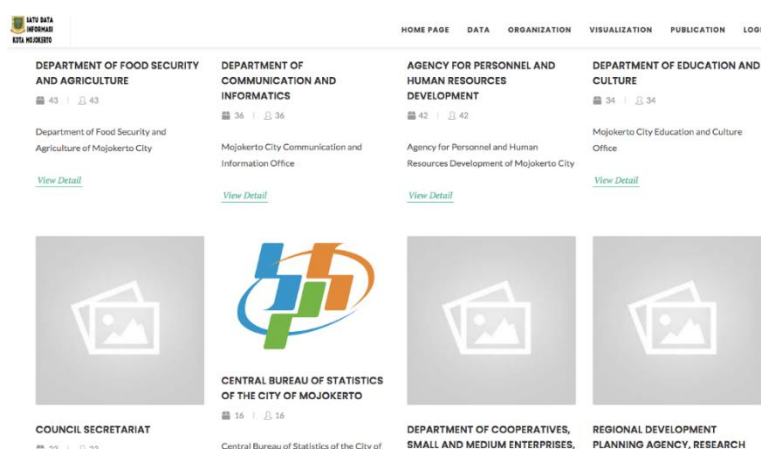


Figure 2 Display of a list of organizations in Satikomo

Public information disclosure has four main principles (Undang-Undang Republik Indonesia Nomor 14 Tahun 2008 Tentang Keterbukaan Informasi Publik), namely:

(1) Every public information is open and accessible to every user of public information. (2) The exempted public information is strict and limited. (3) Every public information applicant must obtain all public information promptly and cost-effectively. (4) Exempted public information is kept private following the law, etiquette, and public interest. It is based on examining the consequences that arise when information is made available to the public. It has been determined that closing Public Information can protect a greater interest than disclosing it or vice versa.

Among the 17 Sustainable Development Goals (SDGs) that have been agreed upon in 193 countries, SDI programs play a role in 2 categories, i.e., (1) quality education and (2) sustainable cities and communities. Quality education is not only for students but also for society in general. Through SDI, the community can play a direct role in developing their respective regions. The next SDG's value is sustainable cities and communities, also contained in the SDI. Mojokerto city continues to grow with the application of information technology to support its performance.

Discussion

The Central and Regional Governments can work together better if they have the same data set about Indonesia. In the future, we can share accurate, up-to-date, integrated, accountable, and easy-to-get-to data between central and regional agencies using just one data set. Also, government agencies won't just use government data for their purposes. It will also meet the public's data needs (Prasetyo, 2022).

SDI implementation still faces numerous challenges. Each component of SDI implementation (data planning, data collection, data checking, and data distribution) has some issues. In the data collection component, the challenge encountered is non-standardized data. One of the data planning component challenges is the lack of a mechanism for monitoring SDI action plan implementation. The problem in the data checking component is that it is still challenging to adhere to SDI principles, such as non-compliance with data standards, non-uniform metadata, and the lack of a data reference code, which results in overlapping and difficult data sharing. Furthermore, the data dissemination component faces challenges regarding digital infrastructure readiness, and data is not integrated and is out of synchronization.

It is hoped that the challenges of implementing the SDI can be reduced by strengthening the points critical to successfully implementing a single data set. If the data is provided following SDI provisions, it can automatically fulfill the community's need for public information disclosure via the SDI portal at the Mojokerto City level. The four principles of public information disclosure have also been met, albeit imperfectly. Still, the commitment to continuously improve processes and systems by the Mojokerto city government has its own added value. Finally, this study has several limitations because the analysis was done conceptually. As a result, empirical studies are required to validate it.

CONCLUSION

SDI adoption remains difficult. Data planning, gathering, checking, and distribution all have issues. Non-standardized data makes data gathering difficult. Data planning lacks a way to track SDI action plan execution. In the data checking component, non-compliance with data standards, non-uniform metadata, and the lack of a data reference code cause data overlap and make data sharing difficult. The data distribution component also struggles with digital infrastructure readiness and data integration and synchronization. Strengthening the points critical to effectively implementing a single data set may help implement the SDI. SDI data can instantly satisfy the community's need for public information disclosure via the Mojokerto City SDI portal. The Mojokerto city government's dedication to improving processes and systems adds value to the four general information disclosure principles, which were met imperfectly. Finally, conceptual analysis limits this work. Thus, actual studies must verify it.

REFERENCE

Abraham, R., Schneider, J., & Vom Brocke, J. (2019). Data governance: A conceptual framework, structured review, and research agenda. *International Journal of Information Management*, 49, 424–438.

- Al-Ruithe, M., Benkhelifa, E., & Hameed, K. (2017). Current state of cloud computing adoption—an empirical study in major public sector organizations of Saudi Arabia (KSA). *Procedia Computer Science*, 110, 378–385.
- Alzamil, Z. S., & Vasarhelyi, M. A. (2019). A new model for effective and efficient open government data. *International Journal of Disclosure and Governance*, 16, 174–187.
- Bappenas. (2017). *Tentang Satu Data Indonesia*. <https://satudata.bappenas.go.id/doc/about-sdi>
- Bayu, D. (2020). *Implementasi Program Satu Data Indonesia Terganjil Berbagai Kendala*. <https://katadata.co.id/yuliawati/berita/5f6c878de0680/implementasi-program-satu-data-indonesia-terganjal-berbagai-kendala>
- Chase, R. B., Shankar, R., & Jacobs, F. R. (2018). *Operations and Supply Chain Management*, 15e (SIE). McGraw-Hill Education.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- de Juana-Espinosa, S., & Luján-Mora, S. (2019). Open government data portals in the European Union: Considerations, development, and expectations. *Technological Forecasting and Social Change*, 149, 119769.
- Donker, F., & Loenen, B. Van. (2016). Bagaimana menilai keberhasilan ekosistem data terbuka? *Jurnal Internasional Digital Earth*.
- Eropa, P. data. (2018). *Buku Emas Data Terbuka untuk Manajer Data dan Pemegang Data*. Komisi Eropa. https://www.europeandataportal.eu/sites/default/files/european_data_portal_-_open_data_goldbook.pdf
- Islami, M. J. (2021). Implementasi Satu Data Indonesia: Tantangan dan Critical Success Factors (CSFs). *Jurnal Komunika: Jurnal Komunikasi, Media Dan Informatika*, 10(1), 13–23.
- Mawanda, A. (2020). *Satu Data Indonesia: Antara Ada dan Tiada*. Suarakarya. <https://www.suarakarya.id/detail/111198/Satu-Data-Indonesia-Antara-Ada-Dan-Tiada>
- Nielsen, O. B., Persson, J. S., & Madsen, S. (2019). Why governing data is difficult: Findings from Danish local government. *Smart Working, Living and Organising: IFIP WG 8.6 International Conference on Transfer and Diffusion of IT, TDIT 2018, Portsmouth, UK, June 25, 2018, Proceedings*, 15–29.
- Nikiforova, A., & McBride, K. (2021). Open government data portal usability: A user-centred usability analysis of 41 open government data portals. *Telematics and Informatics*, 58, 101539.
- OGP, & Olesk, M. (2020). *Independent Reporting Mechanism (IRM): Finland Design Report*.
- OGP, & Patra, R. (2020). *Mekanisme Pelaporan Independen (IRM): Laporan Perancangan Indonesia 2018 – 2020*.
- OGP, Skedsmo, P. W., & Nansen, F. (2020). *Independent Reporting Mechanism (IRM): Norway Design Report 2019 – 2021*.
- Pemerintah Kota Mojokerto. (n.d.). *Organization*. Satuan Data Informasi Kota Mojokerto. <https://satikomo.mojokertokota.go.id/>
- Purwanto, A., Zuiderwijk, A., & Janssen, M. (2020). Citizen engagement with open government data: Lessons learned from Indonesia's presidential election. *Transforming Government: People, Process and Policy*, 14(1), 1–30.
- Putri, R. A. (2022). *Dekonstruksi Kebijakan Publik Masa Kini Melalui Eskalasi Kualitas Satu Data Indonesia: Antara Harapan Dan Kenyataan*.
- Undang-undang Republik Indonesia Nomor 14 Tahun 2008 Tentang Keterbukaan Informasi Publik., Pub. L. No. 14 (2008).

- Peraturan Presiden Republik Indonesia Nomor 39 Tahun 2019 Tentang Satu Data Indonesia, (2019).
- Sayogo, D. S., & Yuli, S. B. C. (2018). Critical success factors of open government and open data at local government level in Indonesia. *International Journal of Electronic Government Research (IJEGR)*, 14(2), 28–43.
- Wang, V., & Shepherd, D. (2020). Exploring the extent of openness of open government data—A critique of open government datasets in the UK. *Government Information Quarterly*, 37(1), 101405.
- Wiyani, F., Wijaya, M. E., & Nawir, A. A. (2019). Analysis Study Of Open Data Implementation To Improve Public Policy Making Process In Jakarta Provincial Government Based On Dynamic Governance. *Jurnal Ilmiah Administrasi Publik Dan Pembangunan*, 10(2), 93–102.
- Zhu, X. (2017). The failure of an early episode in the open government data movement: A historical case study. *Government Information Quarterly*, 34(2), 256–269.