Challenges and Opportunities: Building Archival Infrastructure for ONE DATA

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ABSTRACT

The importance of records infrastructure in Indonesia's ONE DATA initiative, focusing on several key aspects. Records infrastructure is the foundation that supports integrity, better public services, transparency and accountability in government data management. Key challenges faced in building a solid records infrastructure include technical issues, financial constraints, legal and policy issues, the need for skilled human resources, variable data quality, and strict privacy policies. However, there are opportunities that can be capitalised on, such as technological innovation, strategic partnerships, and long-term benefits in the form of efficiency and better public services. **ONE** DATA also highlights implementation and how a strong records infrastructure can impact data integration, accuracy and benefits to public services.

Barriers to building a records infrastructure include limited resources, data ownership, data quality, privacy policies, data consistency and standards, and awareness and compliance. The conclusion of this article is that, while there are many challenges to overcome, a strong archive infrastructure can support the vision of ONE DATA. Strategic investment, strong leadership, collaboration, education, and continuous evaluation are necessary to achieve this goal and bring significant benefits to society, innovation, and better decision-making. This means that Indonesia is moving towards an era of integrated data.

Keywords: *ONE DATA, Archivist challenges, archive infrastructure, Archivist opportunities, archive data processing*

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I. INTRODUCTION

In this increasingly advanced digital era, data is becoming a very valuable asset. It can provide insights, enable better decision-making, and support economic, social, and technological development. In Indonesia, efforts to integrate, manage and share data efficiently have been the main focus of the ONE DATA initiative. The ONE DATA concept aims to create an environment where data can move easily between

various government entities and the private sector, enabling innovation, increased efficiency, and better public services.

One of the key aspects of the ONE DATA initiative is a solid archive infrastructure. A good archive infrastructure is the foundation for managing, storing and retaining the data needed to achieve S ONE DATA's goals. However, building an efficient and effective archive infrastructure is no easy task. In this article, we will discuss the challenges and opportunities involved in building a strong archive infrastructure to support the vision of ONE DATA in Indonesia.

Importance of Records Infrastructure in ONE DATA

Firstly, let us understand why archive infrastructure plays such an important role in the context of ONE DATA. ONE DATA aims to integrate various data sources across government and the private sector to create a unified data platform. To achieve this goal, the data needs to be archived and managed properly. Archival infrastructure is the systems and procedures that support the storage, checking, maintenance and distribution of this data.

In a ONE DATA environment, the archive infrastructure serves as the foundation that supports data transparency, accuracy, and sustainability. It enables participating entities to understand the data they hold, share data with others, and quickly access relevant information. In other words, an effective archive infrastructure is key to creating a responsive and efficient data ecosystem.

While the role of archive infrastructure is crucial, building it properly does not come without challenges. This article will investigate some of the key challenges that need to be overcome, as well as the opportunities hidden in the process. By understanding the issues and identifying the opportunities, we can move forward towards a more realised SATU DATA vision that provides significant benefits to the people of Indonesia.

The ONE DATA archive programme is challenging, but despite the difficulties in developing the archiving infrastructure that supports the programme, there is a huge opportunity to build a cohesive, effective and practical data ecosystem. By overcoming existing legal, cultural and technical barriers, and by leveraging technological innovation and collaborative strategic partnerships, a robust archiving

infrastructure can be a key pillar in achieving ONE DATA's goals and deliver significant benefits in the form of improved public services, innovation and better decision-making."

Framework of Thought

One Data is an initiative of the Indonesian government to encourage data-driven policy making. To achieve this goal, government data must be accurate, transparent, and interoperable. In the future projection, archives should have One Data, to enable archive information to be accessed, like the National Library which already has IOS (Indonesia One Search). In addition, it is possible to realise BIG DATA in Archives, Libraries and Museums that are integrated into ONE DATA like in Finland there is GLAM (gallery Library, Archive, Museum).

II. LITERATURE REVIEW

Archives are a way of organising and managing information so that it can be accessed and found easily in the future. Archival data is often stored on a variety of media, including paper, CDs, DVDs, hard drives or online servers. The importance of good archival data storage is especially relevant in the context of archiving for organisational, historical, research or legal purposes, where the data needs to be carefully preserved and managed over an extended period of time.

An archive record is a term that refers to a single unit or entity of information stored in archival form. An archive can be any type of information that is organised, managed and stored for archiving or long-term retention purposes. Archival data can consist of various formats, such as text, images, audio, or even a combination of these formats. Some examples of an archive data could include:

Text Documents: These can be written documents such as letters, reports, notes, or manuscripts.

Images: Image archive data can be photographs, illustrations, maps, or graphs.

Audio: This might include voice recordings, songs, interviews, or other audio recordings.

Video: Video archive data can be video recordings, films, or other video materials.

Structured Data: This includes data in structured formats, such as databases or spreadsheets. Non-Text Data: Archival data can contain information that is not in text form, such as sketches, diagrams, or sensor data.

III. METHODS

This research uses the literature study method and interviews with several archivists who are experienced in managing archives from various government agencies. Sugiyono (2015: 225) asserts that when viewed from the source of the data,
data collection can use primary sources in the form of data directly obtained by data collectors. Secondary sources are data obtained indirectly by data collectors, for example through other people or documents. The model for determining data source informants in this study is based on a non-probability sampling approach with a snowball sampling technique that allows the author to obtain recommendations for selecting data source informants.
sampling technique which allows the author to obtain recommendations for selecting data source informants based on information from the first informant. The data collection techniques used in this research are observation, interview, and documentation.

IV. RESULTS

The in-depth discussion in the article "Challenges and Opportunities: Building Archival Infrastructure for ONE DATA" will cover various aspects, including an understanding of the importance of archival infrastructure, identification of key challenges, and exploration of opportunities associated with the SATU DATA initiative in Indonesia. A more detailed discussion follows:

1. **The Importance of Records Infrastructure in ONE DATA**

   The discussion begins by explaining why archive infrastructure is a key component in the ONE DATA initiative. This includes:

- Foundation of ONE DATA: Archival infrastructure is the foundation that supports the integrity and quality of data that must be integrated and shared in ONE DATA.
- Better Public Services: A good archive infrastructure enables the government to deliver more efficient, timely and quality public services.
- Transparency and Accountability: Archival infrastructure promotes transparency and accountability in government data management, which is essential in a good governance system.

2. Challenges in Building an Archival Infrastructure

We identified and outlined a number of key challenges faced in the effort to build a solid archival infrastructure:

- Technical Challenges: Managing varied data in different formats, volumes and sources.

- Financial Constraints: Limited budgets to develop and maintain an adequate records infrastructure.

- Legal and Policy Issues: The need to comply with different regulations on data privacy, retention, and access.

- Need for Skilled Human Resources: Lack of expertise in data management, as well as lack of personnel trained in records management. Especially since the 2016 inpassing of archivists has been booming, but many are not capable or love the job of being an archivist.

3. Opportunities for Building Archival Infrastructure

The article also discusses the opportunities available to address archival infrastructure challenges:

- Technological Innovation: The use of new technologies such as artificial intelligence and data analytics to improve efficiency and records management.

- Strategic Partnerships: Collaborating with the private sector and international institutions to build a strong records infrastructure.

- Long-term Benefits: Highlight long-term benefits, such as improved public services and bureaucratic efficiency, that may outweigh the initial costs of building a records infrastructure.

4. ONE DATA Implementation

The article will discuss how a solid archive infrastructure contributes to the overall success of the ONE DATA initiative. This includes:

- Data Integration: How the archive infrastructure enables more efficient merging and use of data across sectors and agencies.
- Data Accuracy and Reliability: How archive infrastructure plays a role in improving the accuracy and reliability of data used in decision-making.
- Benefits to Public Services: How ONE DATA with a strong archive infrastructure can improve public services, for example in healthcare, education, and public administration.
- Constraints and barriers
- Building the archive infrastructure for ONE DATA is an important and complex challenge. ONE DATA is an initiative by the Indonesian government to integrate data from various sources across government agencies. A good archive infrastructure is needed to efficiently store, manage and access this data. However, there are several barriers that can arise in this process:
- Limited Resources: This project requires investment in human, technological, and financial resources. Sometimes, limited resources can be a significant obstacle.
- Data Ownership: One major barrier is the issue of data ownership. Many government agencies have their own data, and they may be reluctant to share this data openly. Clear regulations and coordination agreements are needed to address this issue**.**

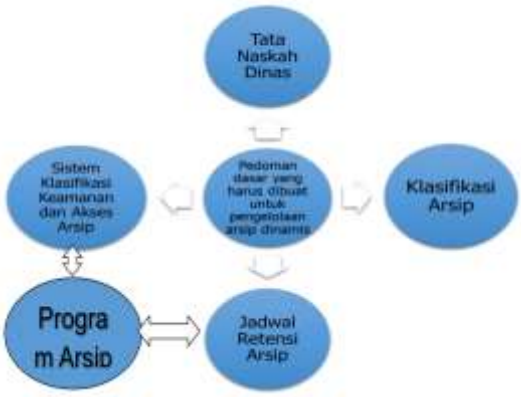
Data Quality: Data from different sources may be of varying quality. Poor data quality can lead to errors and other problems in data usage. Building an infrastructure that can ensure data quality is a challenge.

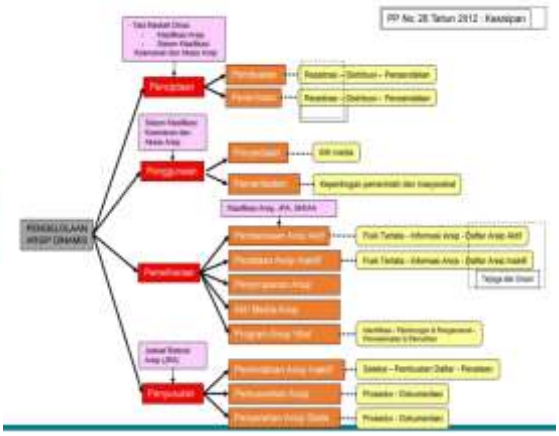
- Privacy Policy: Protecting individual privacy is a must, especially in government data that may contain sensitive information. Creating a system that can secure data but still provide the access needed is an important obstacle.
- Data Consistency and Standards: Integrating data from multiple sources requires the adoption of consistent data standards. Not all government agencies may

already use the same standards. Harmonising data standards and formats is a key challenge.

- Awareness and Compliance: Ensuring that all government agencies understand the importance of the ONE DATA project and comply with existing rules and regulations is another obstacle.

- Based on Government Regulation No. 28/2012 on the Implementation of Law No. 43/2009 on the Implementation of Archives and Archival Procedures.





V. CONCLUSION AND SUGGESTION

In an increasingly connected digital age, the concept of ONE DATA has become a vision that dominates government and private data management efforts. This requires a robust. archive infrastructure as a foundation capable of supporting efficient data integration, management and sharing. This article has discussed the challenges and opportunities involved in building a suitable archive infrastructure to support ONE DATA.

The main conclusion is that, although there are many technical, legal, financial and cultural challenges to overcome, there is great potential in building a robust archive infrastructure. Technological innovations, strategic partnerships and the long-term benefits that can be generated, including improved efficiency of public services and better decision-making, are real opportunities that can be capitalised on.

In the context of ONE DATA implementation, real case studies show that an effective archive infrastructure is key to success. It helps to better integrate data, increase transparency, and enable greater data utilisation.

advice:

Based on an understanding of the challenges and opportunities in building archive infrastructure for ONE DATA, there are several suggestions that can be considered:

1.Strategic Investment: The government and relevant organisations should make strategic investments in the development of an effective archive infrastructure. This includes adequate budget allocation and selection of appropriate technologies.

2.Leadership Development: It is important to have strong leadership that supports the vision of ONE DATA and a strong archive infrastructure. This leadership can help in overcoming cultural and organisational barriers.

3.Collaboration and Partnerships: Developing strategic partnerships with the private sector, educational institutions and international organisations is an important step in overcoming challenges and taking advantage of opportunities.

4.Education and Training: Improving understanding of the importance of archival infrastructure and best practices in data management is key in overcoming cultural barriers. Appropriate training and education can assist in this endeavour.

5.Ongoing Evaluation: Throughout the implementation process, continuous evaluation and adjustments need to be made. This ensures that the records infrastructure remains relevant and effective over time.

Through a commitment to overcoming challenges and capitalising on opportunities, a robust records infrastructure can help realise the vision of ONE DATA. This will bring significant benefits to public services, innovation, and better decision-making, and ultimately, bring Indonesia into an era of integrated data.

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