

# **DIGITAL ARCHIVING POLICY IMPLEMENTATION STRATEGY IN THE MINISTRY OF PRIMARY AND SECONDARY EDUCATION**

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**Abstract.** *The development of information technology encourages government agencies to carry out digital transformation, including in archival governance. This study aims to analyze the implementation strategy of digital archival policies within the Ministry of Education, Primary, and Secondary Education through a case study of the implementation of the Electronic Archives Official Manuscript System (SINDE Archives). The research method used is descriptive qualitative with a case study approach. Data collection techniques are carried out through observation, in-depth interviews, and documentation. The analysis was carried out by combining SWOT analysis for policy strategies and Edward III's implementation theory which includes communication, resources, disposition, and bureaucratic structure. The results of the study indicate that although the implementation of SINDE Archives has provided convenience in managing documents digitally, the implementation of this policy has not been fully optimal. The main obstacles found were the minimal number of competent archivist human resources, lack of technical training, and less than optimal support for digital infrastructure and work culture. The SWOT analysis produces strategies that can be used to overcome weaknesses and threats, and maximize existing strengths and opportunities. This study recommends strengthening human resource capacity, preparing more comprehensive digital archiving SOPs, and strengthening communication between work units as part of a sustainable implementation strategy.*

**Keywords:** *Archive Digitalization, Archival Strategy, Policy Implementation.*

## **1. INTRODUCTION**

The development of information and communication technology has brought about major changes in the way public organizations store, manage, and distribute information. The government, as the organizer of public services, is encouraged to adopt a digital system to be able to answer the challenges of efficiency, transparency, and accountability in bureaucracy. One important element in governance reform is archive management. Archives have strategic value as a source of information, legal evidence, and public accountability material. In this context, digitizing archives is a necessity to answer the need for fast, secure, and easily accessible data management.

The legal basis for implementing the digital archiving policy is available. Law Number 43 of 2009 concerning Archives emphasizes that every state institution is required to manage archives properly, systematically, and responsibly. Furthermore, Presidential Regulation Number 95 of 2018 concerning the Electronic-Based Government System (SPBE) emphasizes the importance of integrating government services through the use of digital technology, including in archive management. Specifically for the education sector, Regulation of the Minister of Education, Culture, Research, and Technology Number 20 of 2022 provides technical guidance regarding the implementation of archives within ministries and educational units. At the national archival institution level, ANRI has issued ANRI Regulation Number 6 of 2021 concerning Guidelines for the Implementation of Digital Archiving as a reference for implementation.

In the General Bureau, Procurement of Goods and Services, Ministry of Education, Primary, and Secondary (kemendikdasmen) an electronic archive management system has been developed called the Electronic Archives Official Manuscript System (SINDE

ARSIP). This system is a development of the previous application, namely the Electronic Official Manuscript System (SINDE) which was introduced based on Permendikbud No. 2 of 2019. SINDE ARCHIVE was updated in 2023 with several new features, such as automatic archive transfer, more complete archive information, and archive lending features. If previously the SINDE application only covered the management of incoming and outgoing mail, then SINDE ARCHIVE has added the function of managing active and inactive archives. Archives that are two years old are automatically categorized as inactive archives and the physical archives are immediately moved to inactive archive storage.

The use of paper in the correspondence process at the General Bureau, Procurement of Goods and Services, is still considered ineffective. In terms of space and cost efficiency, long-term storage of paper documents requires a large physical space and special care to protect documents from damage, humidity, or disaster hazards. This certainly adds to the burden on the organization's budget and logistics.

The success of a digital archive management system such as SINDE ARSIP does not only depend on the system itself, but is also greatly influenced by the quality of the human resources (HR) that manage it. Archive managers or archivists have an important role in ensuring the orderliness of archives and the authenticity of documents. In addition to HR, other factors that support the success of archive management include storage systems, supporting facilities, and the archival work environment. However, in reality, work in the field of archives is still often underestimated in organizations.

According to the Manager of SINDE ARCHIVES at the Ministry of Primary and Secondary Education, archive management is " If the incoming mail is external, the incoming mail is... accepted in parent administration that can be sent via postal courier/can be sent using email because the Ministry of Education, Research and Technology has many sections, each section has its own email which is certainly different, later the main administration examines the completeness and signs the handover, then the complete incoming letter stamp is affixed, then the incoming letter is given a letter direction sheet, then the administrator directs the contents of the letter according to the contents of the letter, after that the correspondence administration inputs data and makes the transfer via letter scanning so that the electronic copy of the letter is stored in the form of word, pdf, etc. the transfer of scanned letters cannot be done if Already shaped electronics (special) letter enter (internal) then the secretary rechecks the completeness of the letter, then the letter is sent to the superior to be signed as an incoming letter. the Which recorded in the next archive sinde application the boss give disposition (if there are changes to the letter) then the letter will be entered into the draft of incoming letters at Sinde Archives. If letter enter internally (scope of the Ministry of Primary and Secondary Education) already have template on filling in incoming mail in the archive synde if you want make letter so Just fill in the items that are available on the incoming letter template, only for internal purposes, not external because we have not received approval from the Ministry of Communication and Information. For directly connected on Srikandi" while for outgoing letters "Management of outgoing letters in the archive syndicate can only be done internally from one unit to another. The Ministry of Education and Culture has template alone to make it easier in making letters according to statutory regulations regarding official scripts in environment Ministry. The filling of the template will be done automatically after the draft of the manuscript The service is signed and stamped. Outgoing letters that have been scheduled will be transferred to in save on system before sent.

According to the Manager of SINDE ARCHIVES, there are still obstacles in digitalizing archives, namely " There is still a lack of ability and knowledge in managing electronic archives at SINDE ARCHIVES, There is still a lack of human resources (HR) in the field that handles archives because here for the management of SINDE archives there are only 2 people out of 18 archive employees here, Most are still confused about

arranging archive classifications, Problems network Internet which is still classified as new still tends to be slow when used.”

As a response to these needs, the Ministry of Primary and Secondary Education (Kemendikdasmen) developed the Electronic Archives Official Manuscript System (SINDE ARSIP) application which began to be updated in 2023. This application is a development of the previous system, namely SINDE (Electronic Official Manuscript System) which only functions to manage incoming and outgoing letters. In its latest version, SINDE ARSIP is equipped with a feature for automatically transferring active archives to inactive archives, more complete archival information, and an internal archive lending system. This step is in line with the national policy regarding the management of dynamic archives, as regulated in ANRI Regulation Number 6 of 2021 and Permendikbudristek Number 20 of 2022.

Although the system development has been carried out, based on the results of observations carried out on June 20, 2025 in the General Bureau, Procurement of Goods and Services of the Ministry of Primary and Secondary Education (Kemendikdasmen), it was found that the implementation of the SINDE ARCHIVE system had not been running optimally. Several obstacles identified include the limited number of digital archive management personnel (only 2 out of 18 archivist employees are directly responsible), low technical competence of employees related to the electronic archiving system, and the absence of formal training or education on digital archiving provided to employees.

In addition, weaknesses are still found in the management of official letters such as lack of accuracy in recording and archiving, difficulty in rediscovering documents, and dependence on paper media which incurs high costs and the risk of document damage. This shows that digital transformation of archiving requires not only technology, but also an implementation strategy that takes into account aspects of human resources, structural support, and organizational readiness.

In this context, implementation strategy is the key to bridging between normative policies and reality on the ground. Implementation strategy is not only concerned with formulating technical steps, but also touches on institutional aspects, strengthening human resource capacity, budgeting, and evaluation and monitoring mechanisms. Referring to the Edward III Implementation Model, the success of a policy is greatly influenced by four main variables: communication, resources, implementer disposition, and bureaucratic structure. These four elements must be considered comprehensively so that archive digitization can be implemented consistently and sustainably.

By reviewing the background and context of this policy in depth, it will be seen the strategic need to formulate an implementation approach that is adaptive, participatory, and based on real needs in the field. This case study on the Ministry of Primary and Secondary Education (Kemendikdasmen) is expected to be a material for evaluation as well as learning in designing a more inclusive, efficient, and broad-based archive digitization policy for improving public services in the education sector.

## **2. LITERATURE REVIEW**

Here are some previous studies that are related to the implementation strategy of digital archiving policies: case studies in the ministry of primary and secondary education.

### ***2.1 Digital archiving policy strategy***

a. Implementation of the policy on the use of the Simak Desa application by the Sekarwangi Village Government, Malangbong District, Garut Regency.

The results of this study indicate that the Implementation of the Policy on the Use of the Simak Desa Application has not been running optimally when associated with the theory of George C. Edward III (Subarsono, 2021:90-92) including: (1) communication, (2) resources, (3) disposition, (4) bureaucratic structure. The obstacles to less-than-optimal outreach to the community, application management officers are still not consistent in providing information about the ease of using the Simak Desa application,

there is still a lack of readiness in terms of application manager competence, and there is still a lack of dedication from application managers.

b. Implementation of the electronic official document (TNDE) policy at the Sumatra River Basin Office III.

The results of the study indicate that TNDE provides a positive contribution in terms of time efficiency and reducing paper use in the administrative process. However, there are still obstacles such as inadequate technological infrastructure, uneven training, and employee resistance to the change from manual to digital systems. The implications of the results of this study emphasize the importance of increasing human resource capacity, providing supporting infrastructure, and the active role of leaders in encouraging a digital-based work culture so that the implementation of TNDE can run effectively and sustainably.

c. Implementation of Archives Digitization Policy at the Library and Archives Service of Karawang Regency.

This study uses Edward III's theory which has 4 factors, namely: communication, Disposition, HR, bureaucratic structure and in the Karawang Regency Library and Archives Office there are several obstacles that must be faced, namely the lack of communication between employees. Lack of human resources both in terms of quantity and ability and several supporting facilities, lack of adaptation to change and others.

## *2.2 Implementation of Digital Archiving Policy*

a. SWOT Analysis in Determining the Strategy for Implementing the Integrated Dynamic Archival Information System Application.

This study proves that the implementation of the SRIKANDI application needs to be optimized with SO (Strength-Opportunity), WO (Weakness- Opportunity), ST (Strength-Threats), and WT (Weakness-Threats) strategies.

b. Optimization of archiving management through e-archives in the Directorate General of Teachers and Education Personnel.

The analysis method used is SWOT analysis. During the implementation of the change project, there were several obstacles faced. However, by using a strategy, these obstacles can be overcome well. With this change project, each party involved can improve their understanding of electronic archiving.

c. The Ministry of Energy and Mineral Resources' Digitalization Acceleration Strategy Towards Sustainable Digital Transformation.

The SWOT results are used to develop a digitalization acceleration strategy. The digitalization acceleration strategy of the Ministry of Energy and Mineral Resources is through strengthening and implementing internal SPBE regulations or policies, improving and strengthening SPBE governance, improving and strengthening SPBE management, and improving and strengthening SPBE services. The Ministry of Energy and Mineral Resources is expected to be a trigger for enthusiasm to further enhance collaboration between work units within the Ministry of Energy and Mineral Resources, government agencies, other related stakeholders, so that in the future, full performance achievements can be carried out to obtain maximum SPBE implementation and performance achievements towards sustainable digital transformation.

## **3. RESEARCH METHODS**

The research method used in writing this article is a qualitative research method. Qualitative research is research that intends to understand the phenomenon of what is experienced by research subjects such as behavior, perception, motivation, actions, etc. Holistically and by means of description in the form of words and language, in a specific

context of natural money and by utilizing natural methods. The data collected are data from interview scripts, field notes, personal documents, memo notes and other official documents such as articles, journals, books and newspapers (Moleong, 2015). The type of research used in this study is descriptive with a deductive approach. The descriptive method is a research method that contains data quotations to provide an overview of the presentation of the report. (Moleong in Tami & Putri, 2019). Data collection was carried out through interviews with the SINDE ARCHIVE Manager at the Ministry of Education, Primary and Secondary. In this writing, the author uses the Implementation model developed by George Edward III as an analytical tool, namely: communication, resources, disposition, and bureaucratic structure (Surmansyah, 2021).

#### **4. RESULTS AND DISCUSSION**

This study uses methods in accordance with qualitative research guidelines, namely, observation, interviews, and documentation. The first observation made was to see the actual conditions by comparing temporary information obtained previously through social media, that the management of dynamic archives in the Ministry of Education, Elementary and Secondary Education received the predicate very Good. As for results observation describe that It is true that the archives are managed very well and neatly. Then it was strengthened through the results of an interview with the archivist who manages the Digital archives, namely SINDE ARCHIVE, who provided complete and clear information regarding the management of the management. structured. Results interview it is described as following:

##### *4.1 Implementation of Digital Archiving Policy using Edward III's Theory, namely:*

###### **a. Communication**

Communication is a human activity in conveying information to others about concerns, problems, hopes, and disappointments. Communication as an important factor because in conveying information involving human resources, "Communication determines the success of achieving the objectives of policy implementation." Effective implementation can only be achieved if the parties implementing the planning have a clear understanding of what they are doing. This understanding can only occur if communication runs smoothly, in addition, communication must be channeled, clear and consistent (Widodo, 2010)

Based on the interview results, "policy communication has been running, especially from the central government to implementing agencies. There is socialization, training, and also circulars that are the legal basis for the implementation of SINDE. But if asked whether the communication has been maximized, I think there is still a lot of room for improvement. The problem is sometimes not just conveying information, but how the information can be truly understood and translated by the implementers in the field. For example, many archive employees are not yet familiar with digital systems, so even though there are technical instructions, they may not immediately understand or be able to carry out according to instructions. In addition, communication between departments is still not smooth. Sometimes the IT unit and the archives unit are not in line. In fact, for a system like SINDE, cooperation between units is very important. So communication is not only from top to bottom, but must also be strengthened horizontally."

###### **b. Resource**

The success of implementation is highly dependent on resources, no matter how clear and consistent the provisions or rules of a policy are. If the policy implementers responsible for implementing lack the resources to implement the policy effectively, then the implementation of the policy will not be effective. Each stage of implementation requires qualified staff members according to the work areas that have been previously determined and decided. The factors of resources are: Staff, Information, Authority, and Facilities to facilitate the policy communication process. (Widodo, 2010)

Based on the interview results, “if we talk about resources, there are actually still many challenges. In the center, the facilities may be quite adequate, but in small work units or those far from big cities, they still have difficulties. Many do not have scanners, adequate computers, or stable internet connections. In terms of human resources, it is also not evenly distributed. Some are already technology literate, but many are still digitally illiterate. Although there has been training, unfortunately the training is sometimes only once or twice, and that is not enough to change work patterns that have been formed for decades. Moreover, archives are work that requires precision, so the transition from manual to digital cannot be instant. Time and budget are also obstacles. Employees in the field are often busy with their daily tasks, so to work on digitizing archives requires extra time, which is not necessarily available. Resources exist, but they are not yet fully sufficient and not evenly distributed.”

#### c. Disposition

Disposition is the attitude and commitment of the implementer related to the policy that must be adhered to, because every policy requires high intention and commitment in order to achieve the objectives of the policy. The characteristics that must be possessed by policy implementers are honesty and commitment. Honesty directs implementers to stick to the outlined program, while high commitment from policy implementers will make them always enthusiastic in carrying out their duties, authorities, functions and responsibilities in accordance with the regulations that have been set, as follows: Cognition, understanding of policies and directions and implementation responses and Intensity of implementer responses (Widodo, 2010).

Based on the interview results, “when it comes to attitude, it really depends on each person and their work environment. Some are very enthusiastic, especially young employees who are more familiar with technology. They usually learn quickly and are enthusiastic about trying new things, including using the SINDE system. But there are also those who are still reluctant to change. Not because they don't want to, but because they feel burdened. This digitalization process takes time, precision, and sometimes becomes additional work outside of their main duties. If there is no encouragement or appreciation from superiors, it is natural that their motivation decreases. The role of leadership here is very important. If superiors support and provide space, usually the implementers are also more enthusiastic. But if the superiors themselves don't really care or don't even understand about digitalization, it's difficult. The implementer's attitude is greatly influenced by their work environment.”

#### d. Bureaucratic Structure

Bureaucratic structure is the arrangement of components (units) of an organization's work, which shows the division of labor and clarity in the integration or coordination of various activities or functions. In addition, the organizational structure also shows job specialization, command lines, etc. Aspects of organizational structure include SOP and fragmentation (Aslinda, 2018).

Based on the interview results, “our bureaucratic structure still tends to be rigid. There are many rules and procedures that slow down the process. For example, to change a system or update an SOP, it sometimes takes a long process. In fact, the digital world moves quickly. In addition, units often work independently. Archive units, IT units, personnel, all work independently even though they should be able to support each other. As a result, the SINDE system, which should be a solution, is actually hampered by a lack of coordination. Supervision and evaluation are also still limited. Not all agencies have a monitoring system that can show how far the digitalization of archives has progressed. So it seems like each is going their own way without a clear direction. In my opinion, if this bureaucratic structure wants to support digital transformation, it must be more flexible, collaborative, and responsive to change”.

#### **4.2 Digitalization Archives Policy Strategy through SINDE ARCHIVES**

##### **a. Strengths**

Based on the interview results, "The main strength in the implementation of digital archiving policies in the Ministry of Primary and Secondary Education is the availability of official digital policy and system infrastructure, namely SINDE ARSIP (Electronic Archives Service Manuscript System). This system is a development of the previous application, namely SINDE, which only served incoming and outgoing letters. SINDE ARSIP is updated with additional features such as moving active archives to inactive, archive information, and a list of requests for archive loans. The existence of supporting regulations such as Permendikbudristek No. 20 of 2022 concerning Guidelines for Digital Archiving Management, as well as national standards from ANRI (for example ANRI Regulation No. 6 of 2021) are also important strengths because they provide formal legitimacy to the direction of this policy. On the institutional side, the leadership's commitment to bureaucratic digitization is relatively high in line with the demands of bureaucratic reform and national digital transformation. The use of the SINDE ARSIP application has begun to be used as an operational standard for the correspondence process and archive storage, replacing the inefficient conventional paper-based method".

##### **b. Weaknesses**

Based on the interview results, "Although the system is available, its implementation still faces a number of fairly fundamental internal weaknesses. One of the main weaknesses is the limited competent human resources (HR). The observation results show that out of a total of 18 employees with archivist status, only 2 people actively use and manage the SINDE ARSIP application optimally. Most of the other staff do not understand the application's functions well because they have never attended special training or education on digital archiving. In addition, from the infrastructure aspect, hardware And Uneven internet access is an obstacle in the operationalization of the application. Some work units still rely on manual systems due to limited computers and networks, especially in areas or implementing units that are far from the center. Another problem is the lack of internal evaluation and supervision of the implementation of digital archiving policies. Although SOPs have been prepared, their implementation is not yet comprehensive and tends to be administrative. Not all employees know and carry out electronic archiving procedures according to standards".

##### **c. Opportunities**

Based on the interview results, "The opportunities that can be utilized in this implementation strategy are quite large. One of them is government support for the digital transformation of government through the Electronic- Based Government System (SPBE) policy. Through SPBE, all ministries and institutions are encouraged to leave the conventional system towards a more efficient and transparent electronic system, including in terms of archive management. In addition, support from the National Archives of the Republic of Indonesia (ANRI) and archive education institutions such as STIAAN and training programs from the State Administration Institute (LAN) are great opportunities to increase employee capacity. The availability of online training resources and collaboration between institutions opens up opportunities for continuous learning. On the technology side, advances in digital systems allow the development of SINDE ARCHIVE to be more integrated with other e-office systems (such as SRIKANDI, e-Document, and the internal platform of the Ministry of Education, Culture, Research and Technology). This integration can accelerate the bureaucratic process and ensure the security, tracking, and maintenance of long-term archives".

##### **d. Threats**

Based on the interview results, "Although the opportunity for digitalization is quite open, the implementation of this policy also faces various external threats that need to

be anticipated. The first is the resistance of work culture to change. Many employees who are accustomed to manual systems feel uncomfortable switching to digital systems because they are considered more complicated or reduce personal control over documents. In addition, the vulnerability of electronic system security is a serious threat. Digital archives are vulnerable to data leaks, hacking, or system damage if they are not protected by a strong security system, such as encryption, routine backups, and firewalls. Other threats come from the uncertainty of policies across periods, especially if there is a change in leadership or organizational restructuring that can disrupt the continuity of the archive digitization program. Dependence on leadership policies also makes implementation potentially stagnant if it is not used as a long-term system”.

## **CONCLUSION**

Based on the research results, it can be concluded that the implementation of digital archiving policies through the SINDE Archive system at the Ministry of Education, Primary and Secondary Education has been running but has not been optimal. The advantages of this system lie in time efficiency, ease of document tracking, and more systematic archive storage. However, the main obstacles arise from the lack of archivists, limited training, and minimal employee understanding of the importance of electronic archive management.

SWOT analysis shows that internal strengths such as available technological infrastructure and supportive policies have not been optimally utilized due to weak human resources and work culture. Meanwhile, Edward III's theory helps identify implementation factors that still need to be improved, especially in terms of communication and bureaucratic structure.

Therefore, an effective policy implementation strategy must involve continuous training, improving the competence of archivists, strengthening internal regulations, and comprehensive socialization of the importance of archive digitization. This step is important to support the creation of accountable, transparent, and information technology-based governance.

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