

## **IMPLEMENTATION STRATEGY OF THE INTEGRATED E-OFFICE PORTAL AT PT DIRGANTARA INDONESIA**

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### **ABSTRACT**

This study aims to analyze the implementation of the e-office Portal at PT Dirgantara Indonesia as an integrated archival system in accordance with Government Regulation No. 28 of 2012. The background of this research is based on several issues, such as limited system features, suboptimal system integration, uneven user training, and the underutilization of the system in supporting administrative effectiveness. This research employs an exploratory qualitative approach. Data were collected through in-depth interviews, direct observations, and document analysis. Data processing was carried out through the stages of data reduction, data presentation, and conclusion drawing. While the analysis technique applied is the SWOT method. The findings indicate that the implementation of the e-office Portal at PT Dirgantara Indonesia has moved toward the development of an integrated electronic records management system. However, further optimization is required by applying a Strength–Opportunity (SO) strategy to capitalize on internal strengths and external opportunities.

**Key words:** Archive; SWOT Analysis; E-office

### **INTRODUCTION**

The transition from manual information systems to digital systems is often confronted with various obstacles, which ultimately become challenges in improving the effectiveness of archival management. Archives play a fundamental role in providing essential information required by an organization. Information regarding the development and implementation of operational activities can be well-maintained when archival management is carried out systematically and continuously. Archives are not only valuable as historical records but also serve strategic functions and hold significant utilitarian value. Practically, archives are important instruments that support organizational leaders in the decision-making process (Sutirman et al., 2016). In this regard, digitalization and the implementation of Management Information Systems (MIS) in archival management are considered capable of enhancing overall administrative efficiency and effectiveness (Juni, 2017).

Currently, organizations of various scales—small, medium, and large—are increasingly recognizing the urgency of adopting technology as an adaptive response to the ongoing acceleration of digital transformation (Siebel, 2019). One manifestation of technological advancement is the emergence of website-based or application-based systems known as the electronic office (e-office), which has been widely implemented in administrative environments. One of the institutions that has adopted an electronic archival system is PT Dirgantara Indonesia. The company has transitioned from conventional administrative processes to digital administration through a web-based platform known as the E-Office Portal Dirgantara Indonesia.

The E-Office Portal Dirgantara Indonesia was developed to enhance the effectiveness of archival management, particularly in expediting the processes of creation, storage, retrieval, and utilization of records, while simultaneously improving paper efficiency and minimizing photocopy usage. However, in practice, the system still faces several challenges. At present, the system only provides features for managing incoming correspondence, while features for outgoing letters are not yet available. Consequently, the creation, delivery, and storage of outgoing letters are still carried out manually.

Field findings reveal that the process of creating outgoing letters is not yet supported by the e-office system because the corresponding feature has not been implemented. As a result, letters are prepared manually using Microsoft Word, delivered to recipients via courier services—recorded in the expedition logbook—and stored manually within each respective unit. This condition indicates that correspondence management has not been fully digitalized and still relies on conventional methods. Dependence on physical documents is one of the factors that hinder the optimization of the e-office system and signifies that the system has not been fully integrated electronically.

Furthermore, the digital signature process is only applied at the divisional level and limited to urgent circumstances, whereas structural officials such as managers and supervisors continue to use manual signatures. This situation causes delays in document delivery, particularly when the authorized official is not present. Additionally, system utilization remains suboptimal, as not all users possess administrative or archival backgrounds. System dissemination is only provided to secretaries, without comprehensive training for all users. Consequently, most employees continue to rely on manual administrative methods.

Bintang and Fadil (2022) emphasize that the success of e-office implementation heavily depends on the readiness of human resources, who not only act as facilitators but also as primary users of the system. Therefore, it is essential to conduct a comprehensive evaluation and analysis of the E-Office Portal Dirgantara Indonesia implementation to ensure that the system effectively and efficiently supports administrative processes.

This study employs a qualitative descriptive approach using SWOT analysis to explore the implementation of the E-Office Portal Dirgantara Indonesia as an integrated archival management system at PT Dirgantara Indonesia. The SWOT analysis is applied to identify and formulate appropriate strategies to address the challenges found in the implementation of the e-office system, aiming to optimize the management of electronic archives within the organization.

## METHOD

The method used in this study is a descriptive method with a qualitative approach. The researcher chose a qualitative approach because it allows for the identification of the implementation of the system currently in place. This approach enables the study to identify the strengths, weaknesses, and potential areas for further development to enhance the effectiveness of the system in supporting an integrated records management system.

Data collection techniques employed in this study include observation, interviews, and documentation study. Data were obtained from five informants, consisting of two IT team members representing system operators as developers and administrators, and three user representatives who have experience using the E-Office Portal Dirgantara Indonesia in their daily administrative activities.

Data analysis was carried out after data processing by providing in-depth arguments and conducting source triangulation to ensure the validity and objectivity of the analysis. The results of the analysis were then described narratively to draw conclusions based on the research findings. The data analysis method applied in this study is SWOT analysis. This method is used to illustrate the implementation of the E-Office Portal Dirgantara Indonesia as an integrated archival system. The SWOT analysis identifies internal factors—strengths and weaknesses—as well as external factors—opportunities and threats. Subsequently, alternative strategies are formulated by aligning internal and external factors.

## RESULTS AND DISCUSSION

The E-Office Portal was initially introduced in 2009 as a corporate communication platform and expanded in 2020 to include administrative functions. By 2023, the company issued a circular requiring its use across departments. The system meets several integration criteria as defined by Government Regulation No. 28 of 2012, particularly in terms of data protection, information completeness, and operational sustainability. An overview of the implementation of the E-Office Portal Dirgantara Indonesia indicates that the system has moved toward the application of an integrated electronic records management system as regulated in Government Regulation No. 28 of 2012. Three factors have been successfully realized: 1) The ability to present information completely, 2) Protection of electronic information, and 3) The existence of a continuous management mechanism.

However, two factors have not yet been optimally achieved—namely, system operation according to established procedures and the availability of operational guidelines or manuals—which require improvement to ensure the system's long-term sustainability.

The Internal Factor Analysis Strategic (IFAS) and External Factors Analysis Strategic (EFAS) in this study was carried out through the process of assigning weights, ratings, and calculating scores for each SWOT element. The results of the IFAS and EFAS analysis are presented as follows.

**Table 1. Internal Factor Analysis Strategic (IFAS)**

NO	STRENGTHS	WEIGHT (0,0-1,0)	RATING (1-4)	SKOR (WxR)
1	The e-office system facilitates administrative processes and enables quick and accurate retrieval of records.	0,10	4	0,40
2	Information security is ensured through user authentication, firewalls, Virtual Private Network (VPN), and activity log recording.	0,10	4	0,40
3	Electronic documents are centrally stored on internal servers with sufficient capacity and restricted access.	0,08	3	0,24
4	User access is managed based on job hierarchy, supporting accountability in records management.	0,07	3	0,21
5	The system is routinely maintained through data backups, IT Helpdesk services, Quality Assurance evaluations, and User Acceptance Tests, and is currently in a stage of continuous development.	0,10	3	0,30
<b>TOTAL SCORE OF STRENGTHS (S)</b>		<b>0,45</b>		<b>1,55</b>

NO	WEAKNESS	WEIGHT (0,0-1,0)	RATING (1-4)	SCORE (BxR)
1	There is no specific policy for electronic records management; current practices still refer to physical archive regulations and IT Service Management guidelines.	0,12	3	0,36
2	User manuals have not been effectively disseminated and are not yet available in visual tutorial formats.	0,09	2	0,18
3	The shortage of IT team personnel hampers system development.	0,09	2	0,18
4	Budget limitations hinder the advancement of the system and supporting infrastructure.	0,10	2	0,20
5	Training is not provided to all users, resulting in technical knowledge gaps among system users.	0,15	2	0,30
<b>TOTAL SCORE OF WEAKNESS (W)</b>		<b>0,55</b>		<b>1,22</b>
<b><math>X = S - W = 1,55 - 1,22 = 0,33</math></b>				

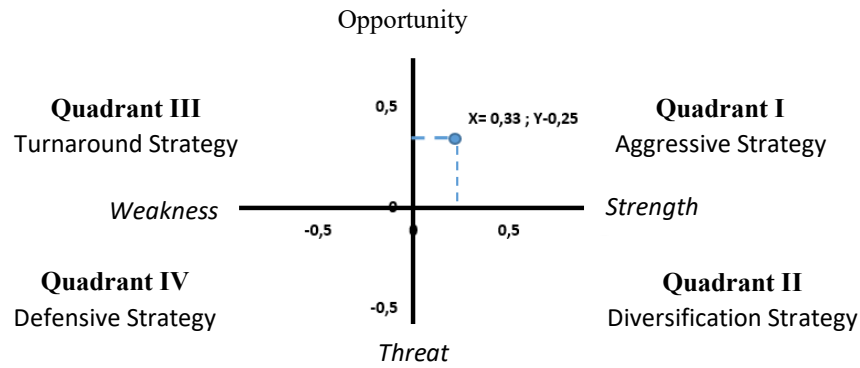
Based on the calculation results of the internal strategic factors, the total strength score was 1.55, while the total weakness score was 1.22. The difference between these two scores was used to determine the X-axis value in the SWOT diagram, resulting in an X-axis value of 0.33.

**Table 2. External Factor Analysis Strategic (EFAS)**

NO	OPPORTUNITY	WEIGHT (0,0-1,0)	RATING (1-4)	SCORE (BxR)
1	Government Regulation (PP) No. 28 of 2012 serves as a strong legal basis for developing an electronic records management system.	0,15	4	0,60
2	Technological advancement supports the development of tracking features for disposition and outgoing electronic correspondence.	0,15	3	0,45
3	Potential collaboration with the National Archives of the Republic of Indonesia (ANRI) and technology vendors to accelerate digitalization and enhance system features.	0,10	4	0,40
<b>TOTAL SCORE OF OPPORTUNITY (O)</b>		<b>0,40</b>		<b>1,45</b>
NO	THREATS	BOBOT (0,0-1,0)	RATING (1-4)	SKOR (BxR)
1	Potential cyberattacks by unauthorized external parties attempting to access the system.	0,20	2	0,40
2	Rapid technological development that requires the system to continuously adapt.	0,20	2	0,40
3	High software licensing costs and frequent technological updates that demand periodic adjustments.	0,20	2	0,40
<b>TOTAL SCORE OF THREATS (T)</b>		<b>0,60</b>		<b>1,20</b>
<b><math>Y = O - T = 1,45 - 1,20 = 0,25</math></b>				

Based on the calculation results of the external strategic factors, the total opportunity score was 1.45, and the total threat score was 1.20. The difference between these two scores was used to determine the Y-axis value in the SWOT diagram, resulting in a Y-axis value of 0.25.

Based on the weighting Internal Factor Analysis Strategic (IFAS) and External Factors Analysis Strategic (EFAS), a score of 0.33 was obtained for the internal factors (X-axis) and 0.25 for the external factors (Y-axis). Therefore, the quadrant position that represents the strategic approach to overcoming challenges in electronic records management through the E-Office Portal Dirgantara Indonesia is shown in the following figure.



**Figure 1. SWOT Analysis Diagram Based on IFAS and EFAS**

The figure 1. indicates that the intersection point between the X-axis and Y-axis lies in Quadrant I, which signifies that PT Dirgantara Indonesia is in a position to implement an aggressive strategy (Strength–Opportunity or S–O strategy). This strategy utilizes all internal strengths.

**Table 3. Matrix SWOT**

Internal (IFAS)	STRENGTH (S)	WEAKNESS (W)
	<ol style="list-style-type: none"> <li>The e-office system facilitates administrative processes and enables quick and accurate retrieval of records.</li> <li>Information security is ensured through user authentication, firewalls, Virtual Private Network (VPN), and activity log recording.</li> <li>Electronic documents are centrally stored on internal servers with sufficient capacity and restricted access.</li> <li>User access is managed based on job hierarchy, supporting accountability in records management.</li> <li>The system is routinely maintained through data backups, IT Helpdesk services, Quality Assurance evaluations, and User Acceptance Tests, and is currently in a stage of continuous development.</li> </ol>	<ol style="list-style-type: none"> <li>There is no specific policy for electronic records management; current practices still refer to physical archive regulations and IT Service Management guidelines.</li> <li>User manuals have not been effectively disseminated and are not yet available in visual tutorial formats.</li> <li>The shortage of IT team personnel hampers system development.</li> <li>Budget limitations hinder the advancement of the system and supporting infrastructure.</li> <li>Training is not provided to all users, resulting in technical knowledge gaps among system users.</li> </ol>
External (EFAS)	OPORTUNITY (O)	STRATEGY W-O
<ol style="list-style-type: none"> <li>Government Regulation (PP) No. 28 of 2012 serves as a strong legal basis for developing an electronic records management system.</li> <li>Technological advancement supports the development of tracking features for disposition and outgoing electronic correspondence.</li> </ol>	<ol style="list-style-type: none"> <li>Optimize the use of the E-Office system to support integrated records management in accordance with PP No. 28 of 2012.</li> <li>Develop tracking and disposition features for outgoing correspondence by leveraging technological advancement.</li> <li>Establish collaboration with ANRI and technology vendors supported by strong</li> </ol>	<ol style="list-style-type: none"> <li>Formulate and implement a specific policy on electronic records management in accordance with PP No. 28 of 2012.</li> <li>Provide user guidelines in the form of visual tutorials to enhance understanding and dissemination.</li> <li>Propose partnerships with ANRI and technology vendors to overcome IT staffing and system development limitations.</li> </ol>

<p>3. Potential collaboration with the National Archives of the Republic of Indonesia (ANRI) and technology vendors to accelerate digitalization and enhance system features.</p>	<p>authentication and centralized documentation.                  4. Encourage management to allocate a specific budget for licensing and infrastructure development.                  5. Improve system effectiveness through structured socialization, technical training, and competency development for all users.</p>	<p>4. Conduct regular user training aligned with new features to ensure equitable user competence.</p>
THREAT (T)	STRATEGY S-T	STRATEGY W-T
<p>1. Potential cyberattacks by unauthorized parties attempting to access the system.                  2. Rapid technological development that requires the system to continuously adapt.                  3. High software licensing costs and frequent technological updates that demand periodic adjustments.</p>	<p>1. Strengthen multi-layered security systems (firewalls, VPNs, and activity logs) to mitigate external cyber threats.                  2. Integrate accountable access control features to maintain data security amidst technological dependence.                  3. Maximize centralized data storage to stabilize system performance, especially for low-spec devices.                  4. Reinforce backup routines and responsive IT helpdesk services to mitigate risks of system failure.</p>	<p>1. Develop a realistic and measurable system development roadmap to maintain adaptability despite budget constraints.                  2. Gradually adjust infrastructure and software licensing based on priority needs to ensure sustainability.                  3. Conduct basic system training for all users to minimize knowledge gaps and human error.                  4. Identify and prioritize software and hardware upgrades based on urgency and efficiency needs.</p>

**CONCLUSION**

The implementation of the E-Office Portal at PT Dirgantara Indonesia has advanced the digital transformation of administrative and archival processes. The findings indicate that although the system is functional and enhances efficiency, further improvements are necessary to achieve full integration. An aggressive (SO) should be implemented, leveraging system reliability and legal frameworks to maximize technological opportunities.

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