



Analysis of Digital Maturity and Digital Readiness in the Digital Transformation of Records Management at Vocational School of Universitas Indonesia

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Abstract. Digital transformation has reshaped how universities create and manage information, yet whether this shift has actually matured into proper digital records management is a different question altogether. This study looks at that question at the Vocational Education Program, Universitas Indonesia (Vokasi UI), using digital maturity as the main evaluative lens and digital readiness as the factor that helps explain the maturity level found. Vokasi UI has adopted a fairly wide range of digital systems for academic, administrative, research, student, financial, and correspondence purposes, but the records these systems generate are not yet governed as one integrated digital records ecosystem. A qualitative evaluative case study approach was used, with data gathered through semi-structured interviews, observation, and document analysis involving archivist, IT, administrative, finance, research, quality assurance, and education informants. The results show that the digital records management at Vokasi UI has evolved beyond the manual practice as evidenced by the use of several systems such as Andieni, NAS, Google Drive, Oracle, MDK, RISE, Sipurwa, Simantav, Sigma, Sakti, SIAK-NG, and EMAS UI. However, records are still scattered in units, storage media, and individual working habits. Digital maturity sits somewhere between repeatable and partially defined: certain units have settled into fairly structured repeated practices, but internal SOPs, metadata, retention, integration, audit trails, and dedicated evaluation of digital records are still inconsistent. Digital readiness is relatively good in practical, day-to-day use of technology but weaker in records management literacy, archival human resources, coordination across units, leadership support at the strategic level, and a clear roadmap. The study concludes that to improve digital records management at Vokasi UI, it is not just a matter of adding more applications or storage space, but also institutional policy, standards for classification and metadata, rules for retention, an integrated repository, training, archival focal points in each unit, and ongoing evaluation.

Keywords: digital records management; digital maturity; digital readiness; digital transformation; higher education; Vokasi UI

1. Introduction

Digital transformation has become a major agenda in the governance of modern organizations, higher education included. Alenezi [1] argues that higher education institutions have no choice but to transform digitally if they want to remain relevant amid shifting industrial scenarios and trends.. In a university setting, that transformation can touch teaching, pedagogy, learning and curriculum, infrastructure, administration, and management alike. When it comes to university administration specifically, digital transformation is not just about applications, academic information systems, electronic signatures, or storing documents in digital form. It also changes how an organization creates, manages, stores, accesses, secures, and accounts for records as evidence of what it has done. Digital transformation in the archives and records management field, then, needs to be read as a comprehensive shift in the records management ecosystem rather than mere digitization or document conversion. Yang, Du and Shi [2] make a similar point, noting that the digital transformation of records management is important precisely because traditional systems struggle to respond to the complexity, speed and accountability that modern governance requires.

Universitas Indonesia (UI), being one of Indonesia's oldest and largest universities, positions itself in the UI Strategic Plan 2020-2024 as a leading university that can respond to major challenges, particularly the rise of a smart society whose daily life is increasingly tied to technology. This pushes UI to build digital transformation within its own institutional environment so that it can support the tridharma of higher education along with the administrative processes underneath it. One of the work units sharing responsibility for advancing this transformation within UI is the Vocational Education Program of Universitas Indonesia, referred to from here on as Vokasi UI.

Vokasi UI's institutional activities are genuinely varied. They cover daily teaching and learning, academic administration, research, community service, student services, human resource management, finance, cooperation, and study program administration. To support all of this, Vokasi UI has built and rolled out several internal application systems as part of its service and business-process digitization, with the goal of running services and institutional processes more efficiently [3]. Every activity supported by these systems produces documents and digital records, and those records can carry administrative, legal, academic, accountability, and institutional-memory value.

Seen through a records management lens, records are evidence of organizational activity, and they need to be managed so they stay authentic, reliable, complete, and usable for as long as they are needed. ISO 15489-1:2016 [4] frames records management as covering the concepts and principles behind creating, capturing, and managing records, including metadata, records systems, policy, responsibilities, monitoring, and training. In other words, digital records management cannot be reduced to simply storing documents on computers, in the cloud, in email, or inside applications. Digital records have to be governed by standards that preserve their creation context, access rights, classification, retention, security, and retrievability. Writing on electronic environments, the International Council on Archives [5] also stresses how important metadata is for keeping records authentic, reliable, complete, and usable over time.

Initial observations point to several problems at Vokasi UI. First, digital records are created across multiple systems and media at once — academic information systems, email, cloud storage, unit folders, administrative applications, and informal communication channels. Second, units do not share the same standards for file naming, folder classification, metadata, access control, retention, or backup. Third, some lecturers and staff are already comfortable working digitally, yet may not fully grasp the difference between an ordinary digital document and a digital record as institutional evidence. Fourth, the small number of archivists limits how much coordination, guidance, evaluation, and control can be exercised over records across work units. Taken together, these conditions make Vokasi UI a useful case for examining the digital transformation of records management through the lenses of digital maturity and digital readiness.

The phenomenon of digital transformation in archives and records management deserves attention precisely because so many organizations now run digital systems across almost every work process, without that necessarily meaning they have reached maturity in digital records management. An organization may well have academic systems, institutional email, cloud storage, and digital communication channels in place, while the records that come out of them stay scattered, unclassified, hard to retrieve, thin on metadata, and disconnected from any retention schedule. Digitization can then create something of a paradox: documents become easier to create and share, but harder to control as institutional records. This is why studying the digital transformation of records management needs to bring in two key concepts together — digital maturity and digital readiness. Machado et al. [6] explain that digital readiness and digital maturity work as foundational, sequential elements of a successful digital transformation, linking the initial assessment stage to the longer-term development roadmap.

Digital maturity is employed here to measure the extent of digital transformation that has been executed and institutionalized as a mature organizational practice. Teichert [7] surveys contemporary trends in digital maturity models and the dimensions used to evaluate organizational digital maturity; the systematic review identified 24 pertinent studies and 22 digital maturity models, and also emphasizes the importance of organizational culture in digital maturity. Aras and Büyüközkan [8] take it further, claiming that maturity models assist organizations in assessing their current state and in planning digital transformation roadmaps that are congruent with their goals. Their model is described as holistic in that it encompasses the entire digital transformation process, from strategy to governance.

Digital readiness, on the other hand, is the organizational preparedness that is necessary to undertake digital transformation. Readiness is not just about technological readiness but also encompasses human resources, work culture, business processes, leadership support, managerial capability and the broader organizational ecosystem. Soomro, Hizam-Hanafiah, and Abdullah [9] show that digital readiness models can be used as tools for organizational development. Michelotto and Joia [10] similarly stress the importance of conceptualizing, assessing and improving organizational digital transformation readiness. In this study, readiness is not considered the end goal of

measurement but an explanatory factor something that helps explain why digital records management has achieved a certain level of maturity.

Several previous studies have addressed digital maturity, digital readiness, and electronic records management, but there remains a significant untapped research area. Teichert [7] focuses on the maturity of systematic digital transformation in general, making it a strong contribution to building a foundational concept, but it does not specifically address the digitalization of higher education records management. Aras and Büyüközkan [8] offer a holistic digital maturity model useful for digital transformation roadmaps, but this model is also general and not specifically geared towards digital records management. Santos and Sousa [11] are more closely aligned with the archival topic, developing a measurement model for the maturity of records management produced and stored in digital format. This paper is significant because it demonstrates that digital records management maturity can be measured at the level of the document-creating organization.

On the readiness side, Asogwa [12] examined the readiness of three federal universities in Nigeria to manage electronic records by assessing their e-records framework, infrastructure, and structural facilities. The methods used included questionnaires, oral interviews, and checklists for staff at the Registration Department. Mukred, Yusof, Mokhtar, and Manap [13] examined the readiness framework for implementing an Electronic Records Management System at higher/professional education institutions in Yemen, involving archives managers, archivists, administrators, and IT personnel. Yang, Du, and Shi [2] measured the transformation mechanism of digital records management in the context of ERMS through a case study in China, with the aim of understanding the transformation of records management processes towards digitalization and uncovering long-term ERMS performance and effectiveness standards.

Building on this mapping, the present study contributes by combining the two approaches. Digital maturity is used to assess how mature digital records management is, covering governance, policies, records management processes, classification, metadata, retention, systems, integration, access, security, backup, evaluation, and continuous improvement. Digital readiness, meanwhile, is used to explain the factors that support or hold back that maturity, including human resource readiness, digital literacy, understanding of digital records, training, technological infrastructure, leadership support, organizational coordination, digital work culture, and the need for a development roadmap. With that framing, this study sets out to answer how the digital transformation of records management is currently unfolding at Vokasi UI, how mature its digital records management practices are, which readiness factors support or hinder that maturity, and what recommendations follow for improving it.

2. Literature Review

2.1. Digital Records

The term digital records is not always used consistently in archival discourse. Records professionals have long favored the term electronic records instead. The Society of American Archivists' Dictionary of Archives Terminology notes that electronic records

often refers to records created in electronic format, though the term can also cover scanned records. Digital Preservation Testbed [14] defines a digital record as the combination of hardware, software, and computer files needed to use or examine a document.

In practice, electronic records and digital records tend to be used interchangeably for records that computers can read. Muhidin, Winata, and Santoso [15] describe digital records as records stored and transmitted in binary code that can be opened, created, deleted, processed, and used with computing tools. That definition, however, mainly addresses format. The concept of digital records also needs to be understood through records characteristics such as authenticity, reliability, integrity, and usability, as set out in ISO 15489 [4]. Millar [16] adds that records carry archival qualities that include content, structure, and context. If digital records are viewed only as objects sitting in digital media, then, the discussion stops at technical format and never reaches the archival qualities that actually make a digital object a record.

2.2. Records Management in a Digital Environment

Records management underpins organizational information governance. ISO 15489-1:2016 [4] explains that records management covers the concepts and principles of creating, capturing, and managing records, and it also stresses metadata, records systems, policy, responsibilities, monitoring, training, business-context analysis, identification of records requirements, records controls, and records management processes generally. Records management, then, is not simply storing documents — it is a systematic process meant to keep records authentic, reliable, complete, and usable for as long as they are needed.

These principles become more complicated in a digital environment. Digital records can be created through academic systems, email, cloud storage, collaboration applications, administrative systems, personal devices, and digital communication channels, all at once. That creates new challenges, since digital records are easy to create, copy, distribute, modify, and scatter. Without proper management, they can lose context, become hard to retrieve, lose their authoritative status, or fail to hold onto their authenticity.

The International Council on Archives [17] stresses that metadata in electronic records management is what maintains records' authenticity, reliability, integrity, and usability over time. Metadata lets records be identified, understood, retrieved, and managed according to their creation context. Digital records management, in turn, needs systems, procedures, and policies that preserve the relationship between records, their creators, organizational functions, access rights, retention, and use history.

2.3. Digital Transformation in Records Management

Digital transformation in records management is sometimes confused with document digitization. Digitization typically refers to the conversion of physical documents to digital formats while digital transformation involves changes to processes, work culture, governance, systems and organizational strategy in the management of

information and records. Mergel et al. [18] define digital transformation as a holistic effort to revise core organizational processes and services that go beyond ordinary digitization – shifting from an analog-to-digital transition toward a complete rethinking of policies, processes and user needs. In the field of records management, digital transformation refers to changing how organizations create, capture, store, access, secure, evaluate and preserve records in digital environments.

Digital transformation is perceived as an organizational journey, requiring an accurate roadmap and effective process management [8]. Digital maturity models are pertinent in this case because they enable organizations to assess their current position and formulate roadmaps consistent with their objectives. In the records management domain, Yang, Du, and Shi [2] demonstrate that digital transformation is closely linked to the implementation of Electronic Records Management Systems (ERMS). ERMS can restructure records management practice, but information quality remains a major challenge even so. Digital records transformation, then, does not end once a system is in place — it also needs changes in work patterns, standards, and long-term evaluation.

2.4. Digital Maturity

Digital maturity is used to gauge how far an organization has progressed in carrying out digital transformation. Within digital records management, digital maturity is not just about whether technologies or applications exist. It also measures the organization's ability to embed technology within its strategy, governance, work processes, organizational culture, human resources and records management systems. Teichert [7] notes that digital maturity models are multidimensional, and shows that organizational culture is often underrepresented in them – a very important point, as digital transformation is affected not only by technology but also by work practices and organizational behaviour.

Aras and Büyüközkan [8] argue that digital maturity should be understood holistically. A digital maturity assessment helps organizations understand where they stand and build a more systematic digital transformation roadmap. Within digital records management, maturity has to be read alongside records management principles: an organization should not just store documents digitally, it should manage records as authentic, reliable, complete, and usable evidence of organizational activity. ICA [17] similarly stresses that electronic records need to meet requirements of authenticity, reliability, integrity, and usability.

In this study, digital maturity serves as the main framework for assessing the digital transformation of records management at Vokasi UI. Its dimensions cover digital records governance and policy; digital records management processes; systems, technology, and integration; access, security, and reliability; and continuous evaluation and development. Santos and Sousa [11] explain that the maturity of digital records management is based on a maturity model that measures the management of records in the digital age.

The digital maturity level categories in this study were developed by adapting the concept of maturity models long used in assessing organizational process maturity. One of the most influential early references is the Capability Maturity Model (CMM)

developed by the Software Engineering Institute, Carnegie Mellon University. Paulk, Curtis, Chrissis, and Weber [28] explained that the CMM is used to help organizations determine the current level of process maturity and identify critical areas for process improvement. The classic CMM model recognizes five maturity levels: Initial, Repeatable, Defined, Managed, and Optimizing. This framework has subsequently evolved into various organizational maturity and digital transformation models. The CMMI Institute [26] also explains that maturity levels represent a gradual path for organizations to improve performance and processes, with each level adding higher levels of functionality, standards, measurements, and controls. In the context of this study, these five levels are not used to assess software processes but are adapted to assess the maturity level of digital records management.

The digital maturity levels used in this study can be defined as follows. Initial/ad hoc means digital records management practices are not yet standardized and still ride on individual or unit habits. Repeatable means practices have started to be carried out repeatedly, but are not yet documented and not yet uniform across units. Defined means there are certain guidelines, work patterns or standard practices, but they are still unevenly implemented. Managed means digital records management is actively managed, monitored, supported by systems, and has a clearer division of responsibility. Optimized means digital records management is integrated, regularly evaluated, supported by metadata, retention, and access control, backed by a reliable system, and continuously developed.

The Initial/ad hoc, Repeatable, Defined, Managed, and Optimized categories used here are adapted from the classic maturity model, with indicators tailored to what digital records management actually needs — governance, SOPs, classification, metadata, retention, systems, integration, access rights, backup, authentication, evaluation, and a development roadmap.

Table 1. Digital Maturity Level

Digital Maturity Level	Conceptual Basic Level	Meaning in Digital Records Management
Initial	Practices are not yet stable and depend on the individual	Digital records are stored according to unit/employee practices, without shared standards.
Repeatable	The practice starts to repeat itself	Storage and retrieval are repeated but not documented.
Defined	The process begins to be defined	Patterns, guidelines, or partial standards exist, but they are not uniform across units.
Managed	Processes are managed and monitored	Digital records are managed with systems, responsibilities, access control, and monitoring.
Optimized	Processes are integrated and continuously improved	Digital records are standardized, integrated, evaluated, and continuously developed.

2.5. Digital Readiness

Digital readiness assesses how prepared an organization is for digital transformation. Where digital maturity looks at how far transformation has progressed, digital readiness looks at the prerequisites that let transformation succeed in the first place. Here, digital

readiness is used to answer questions about the readiness of human resources, technology, organization, work culture, and institutional support for enabling a digital records management transformation.

Soomro, Hizam-Hanafiah, and Abdullah [9] argue that digital readiness models can function as organizational development tools; their systematic review identifies readiness dimensions covering digital skills, digital tools and applications, digital systems and infrastructure, and digital ecosystem and culture. Similarly, Michelotto and Joia [10] highlight the multidimensionality of organizational digital transformation readiness, which includes technological resources, business processes, management capability, human capability, and corporate culture. Within higher education, Deja, Rak, and Bell [19] show that digital readiness relates to information literacy, academic readiness, and how capable the academic community is of using technology for academic and administrative purposes.

Digital readiness is positioned in this study as an explanatory factor behind digital maturity — the maturity of digital records management can be explained, at least partly, by the readiness of human resources, technology, organization, and work culture, along with the obstacles encountered along the way. The dimensions of digital readiness used here include human resource readiness and digital literacy; technological and infrastructure readiness; organizational readiness and leadership support; digital work culture; and obstacles and development needs.

The digital readiness category used in this study is not a rigid maturity level but rather an interpretive category meant to explain how ready the organization is to support the digital transformation of records management. Readiness differs from maturity in this sense: readiness looks at the initial prerequisites or capacities that make digital transformation possible, while maturity assesses how far the transformation process has actually developed. Machado et al. [6] explain that readiness assessment is typically used before or at the early stage of the maturity process, while maturity assessment captures the organization's actual condition partway through that process, and that organizational readiness is what allows an organization to move toward digital maturity in the first place.

Table 2. Digital Readiness Level

Digital Readiness Level	Operational Meaning
High/strong	Readiness is available, understood, implemented, and supports transformation consistently
Adequate	Readiness already exists and is being used, but it is not yet fully focused on digital records management
Medium	Readiness is starting to appear, but it is still partial and not evenly distributed
Needs reinforcement	Preparedness is inadequate and still requires SOPs, human resources, training, systems, coordination or budget
Low/not ready	The readiness element is not yet available or not yet functioning in supporting transformation

Based on this literature, the readiness categories in this study were built descriptively and qualitatively. High/strong applies when a readiness aspect is available, understood, implemented, and supports the consistent management of digital records. Adequate applies when readiness elements exist and are used in practice but are not yet fully

standardized or specifically directed at digital records management. Medium applies when readiness is starting to appear but remains partial, unevenly distributed, and dependent on particular units or individuals. Needs reinforcement applies when a readiness element is recognized as important yet still shows major weaknesses — a lack of SOPs, training, human resources, system integration, budget, or coordination. Low/not ready applies when a readiness element is simply not yet available or not yet functioning in support of digital records management.

2.6. Electronic Records Management System

An Electronic Records Management System (ERMS) is one of the key instruments for managing digital records. It is designed to help organizations create, capture, store, manage, retrieve, maintain, and dispose of electronic records in line with records management principles. But ERMS success is not just a matter of having the technology in place — it also depends on organizational readiness, human resources, policies, standards, and work culture.

Mukred et al. [13] researched the preparedness of higher professional educational institutions in Yemen to introduce electronic records management systems (ERMS). They argued that electronic records are evidence of organizational activities, instruments of assessing performance, and elements of good governance. Their findings emphasize the importance of a framework with records managers, archivists, administrators, and IT personnel to inform ERMS readiness. Asogwa [12] observed that universities lacking readiness to manage electronic records often possess weak legislative and organizational frameworks. Without appropriate planning and the adoption of records-management standards, electronic records produced by modern technologies may become inaccessible in the future and undermine accountability.

These studies are relevant since universities generate large volumes of electronic records. The present study differs, however, because it does not stop at assessing ERMS adoption readiness alone. It combines digital maturity as the main evaluative framework with digital readiness as an explanatory factor, so the question is not only whether the organization is ready, but also how mature its digital records management actually is.

2.7. Conceptual Framework

The conceptual framework here rests on the relationship among digital records management transformation, digital maturity, and digital readiness. Digital transformation of records management is understood as a change in processes, systems, governance, and work culture across the creation, storage, use, security, retention, and evaluation of digital records.

Table 3. Concepts, dimensions, and indicators of digital maturity and digital readiness

Concept	Dimension	Main Indicators
Digital Maturity	Digital records governance and policy	Policy, SOPs, responsibility, digital transformation agenda
Concept	Dimension	Main Indicators
Digital Readiness	Digital records management processes	File naming, folder structure, classification, metadata, retention, disposition
	Systems, technology, and integration	Official systems, retrieval, inter-unit integration, institutional storage, backup
	Access, security, and reliability	Access rights, security, authenticity, reliability, integrity, usability
	Continuous evaluation and development	Periodic evaluation, problem follow-up, development plan, roadmap
	Human resource readiness and digital literacy	Digital capability, understanding of digital records, training, adequate human resources
	Technology and infrastructure readiness	Internet, devices, applications, storage, technical support, system suitability
	Organizational readiness and leadership support	Policy, leadership support, coordination, budget, division of roles
	Digital work culture	Digital work habits, compliance with standards, collaboration, openness to change
	Obstacles and development needs	Lack of SOPs, human resources, training, systems, awareness, and roadmap

Conceptually, human resource readiness, technology, organization, culture, and leadership support all shape an institution's capacity to reach a higher level of digital records management maturity, and the relationship runs both ways: a maturity assessment can point to which readiness areas need strengthening. Weaknesses in digital retention, for instance, point to a need for training, a retention policy, leadership support, and coordination across units. Weak system integration points to a need for stronger infrastructure, IT capacity, and information governance design. This framework lets the study not only describe the state of digital records management but also explain why that state exists and propose recommendations for developing it further.

3. Research Methodology

3.1. Research Approach and Method

Methodologically, this study takes a qualitative approach with a pragmatic-constructivist orientation. The constructivist side comes in because the research tries to understand the experiences, practices, meanings, and constraints that archivists, administrative staff, lecturers, leaders, and IT managers actually deal with. The method chosen is an evaluative case study. A qualitative approach fit best because the aim was to understand, in depth, the processes, practices, experiences, constraints, and context surrounding the digital transformation of records management at Vokasi UI. As Creswell and Poth [20] put it, qualitative research is used to explore and understand the meanings individuals or groups attach to social or organizational problems.

The case study method was chosen because the research focuses on a single site — Vokasi UI. Yin [21] explains that case studies suit the study of contemporary phenomena within real-life contexts, particularly when the line between phenomenon and context is not entirely clear. Here, the phenomenon is the digital transformation of records management, and the context is the administrative, academic, research, community service, and institutional governance environment at Vokasi UI.

The research is evaluative in the sense that it goes beyond simply describing the state of digital records management — it also assesses maturity using the digital maturity concept and explains the supporting factors through digital readiness. Digital maturity is used to gauge how directed, standardized, integrated, secure, and sustainable digital records management has become. Digital readiness is used to explain how prepared the organization is to reach a particular level of digital maturity.

3.2. Selection of Informants

Informants were chosen through purposive sampling, based on their involvement, knowledge, and relevance to digital records management at Vokasi UI. They included archivists, administrative leaders or coordinators, academic administration staff, research and community service staff, human resources and finance staff, study program representatives, lecturers, and IT personnel — people directly involved in creating, managing, using, securing, or making policy decisions about digital records.

Table 4. Research informants

Informant Code	Informant Group	Division/Unit	Role in the Study
WY1	Archivist of Vokasi UI	Records Management	Main informant for understanding policy, practice, obstacles, classification, retention, storage, and digital records management.
AR2 and AT3; HR4; RT5; WN6	Administrative leaders/coordinators	Education; Academic Quality Assurance Unit; Finance; Human Resources	Informants for understanding policy support, organizational structure, digital transformation priorities, and decision-making.
NS7	Administrative staff	Research	Informant for understanding records creation and management in a work unit.
AR2; HR4	Lecturers	Education; Academic Quality Assurance	Informants for understanding the creation and storage of academic, research, and community service documents.
DS8	IT/system information officer	Facilities/IT	Informant for understanding digital systems, infrastructure, integration, security, backup, and technical support.

Eight informants were involved in total, a number arrived at based on data needs and information sufficiency. Two of them, HR4 and AR2, held dual roles as lecturers and structural leaders: HR4 headed the Academic Quality Assurance Unit, while AR2 managed the Education Division.

3.3. Data Collection Techniques

Data were gathered through semi-structured interviews, observation, and document analysis. The semi-structured interviews were meant to draw out informants’ experiences, understanding, practices, constraints, and views on the digital transformation of records management. The interview guide was built around the components of digital maturity and digital readiness, with questions organized into three main areas: the general condition of records management, the digital maturity of records management, and digital readiness as a supporting factor.

Observation was carried out to see firsthand how work units manage documents and digital records in practice — how they store digital documents, structure folders, use official or informal storage media, retrieve documents, arrange access, and use digital applications in day-to-day work. This mattered because records management practice is not always fully captured through interviews alone.

Document analysis covered materials relevant to digital records management: policies, SOPs, archival guidelines, records lists, classification schemes, retention schedules, organizational structures, digital transformation documents, system-use guides, and examples of digital storage structures. This was used to check whether digital records management practices were actually backed by written rules and institutional standards, or not.

3.4. Data Analysis Technique

Data were analyzed qualitatively through transcription, data condensation, coding, theme development, interpretation, and conclusion drawing. Miles, Huberman, and Saldaña [22] describe qualitative data analysis as involving data condensation, data display, and conclusion drawing/verification, and this study also drew on thematic analysis, which Braun and Clarke [23] describe as a flexible method for identifying, analyzing, and reporting patterns or themes within qualitative data.

Coding was done both deductively and inductively. The deductive coding used the components of digital maturity and digital readiness as initial categories, while inductive coding captured field findings that fell outside those initial categories — informal document storage practices, dependence on personal media, and coordination problems between units, among others. The resulting analysis was then used to map the level of digital records management maturity.

3.5. Data Validity

Data validity was maintained through source triangulation, technique triangulation, member checking, and audit trails. Source triangulation compared information from archivists, leaders, administrative staff, lecturers, study programs, and IT personnel. Technique triangulation compared what came out of interviews, observation, and document analysis. Member checking was used to confirm preliminary interpretations with selected informants, and audit trails were kept by documenting the research process, interview guide, field notes, codes, and analytical matrices.

4. Findings and Discussion

This section works through the qualitative interview data on the digital transformation of records management at Vokasi UI. Interviews covered informants from the archival, information technology, human resources, finance, research, academic quality assurance, and education functions. The discussion below is organized around the current condition of digital transformation, the state of digital records and storage,

digital maturity, digital readiness, and the obstacles standing in the way of digital records transformation.

4.1. Digital Transformation Conditions at Vokasi UI

According to the 2025 Vokasi UI Performance Report, Vokasi UI has one archivist, 91 permanent lecturers, 86 administrative staff, and roughly 4,700 students. From a purely staffing standpoint, that is a fairly lean team for the number of students being served. To keep service quality up regardless, Vokasi UI has digitized a number of its services and business processes, developing systems such as Simantav, Sakti, Sigma, and Sipurwa, alongside university-level systems like SIAK-NG, EMAS UI, and Andieni UI.

Table 5. Information systems used at Vokasi UI

No.	System Name	Function
1.	Sigma	The Student Activity Information System (SIGMA) was developed by the Student Affairs Unit to support student activity processes, including requests for activity permits, funding requests, and faculty support letters.
2.	Simantav	The Vokasi Internship and Final Project Assessment System (SIMANTAV) was developed by the Education Unit to support internship and final project assessment processes from preparation to post-examination administration.
3.	Sipurwa	The Student and Alumni Letter Service System (SIPURWA) is used by education staff, students, and alumni to submit and monitor letter requests.
4.	SIAK-NG	SIAK-NG UI is the official academic service portal of Universitas Indonesia. Students use it to monitor class schedules, fill out study plans, check grades, view transcripts, and access the academic calendar.
5.	EMAS UI	EMAS UI is the university's e-learning management system, used by lecturers and students for online learning, uploading materials, submitting assignments, quizzes, and discussions.
6.	Sakti	The Vokasi UI Annual Performance Analysis System (SAKTI) is a system developed by the Data and Information Center Unit to support reporting, monitoring, and evaluation of annual performance achievements.
7.	Andieni	Andieni UI is the Electronic Official Correspondence Application used within Universitas Indonesia to manage correspondence, from drafting and approval to electronic signature and distribution.

Having all these systems in place reflects Vokasi UI's push to make services more effective and efficient for its stakeholders, and it signals that digital transformation is indeed taking place across its business processes. Mergel et al. [18] make the point that digital transformation is about changing organizational processes through digital technology, not merely digitizing them, and Alenezi [1] similarly shows that in higher education, digital transformation touches service models, business processes, technological readiness, governance, and human resources together. The fact that Vokasi UI now runs multiple systems is both an opportunity and a risk for records management at once: an opportunity, because more processes end up documented digitally, but also a risk, since records can end up scattered if there is no integrated digital records management architecture holding them together.

4.2. Digital Records and Storage Conditions at Vokasi UI

Records management at Vokasi UI has clearly moved toward digital forms, but it is not yet fully integrated or standardized institutionally. Two broad conditions stand out. First, from a formal archival standpoint, records management has become more organized thanks to routine archival supervision from the university level — WY1, the archivist, noted that records management at Vokasi UI has grown noticeably more orderly and that its archival supervision score sits above 4. Second, looking at digital records management across units, practice remains scattered, tied to individual unit habits, and not backed by a single integrated system built specifically for digital records management.

The types of records produced at Vokasi UI are varied simply because the institution carries out the full range of higher education functions. WY1 explained that the dominant records come from education, research, and community service activities, a point echoed by other informants. The Human Resources Unit produces assignment letters, managerial decrees, grant decrees, winner decrees, promotion documents, official memos, announcements, employment certificates, and travel documents. The Finance Unit produces fund request records, activity dispositions, payment documents, financial accountability documents, Oracle and MDK documents, and hardcopy records tied to audits. The Research Unit produces research proposals, minutes, assignment agreements, research reports, community service records, innovation documents, intellectual property records, and certificates. The Academic Quality Assurance Unit produces monitoring and evaluation documents, while the Education Unit produces request letters and education activity reports. All of this shows that Vokasi UI's records sit right at the core of higher education business — education, research, and community service — as well as finance, human resources, academic quality, and institutional services. Digital records management at Vokasi UI, then, is not merely a technical matter of document storage; it is bound up with institutional governance, accountability, auditing, accreditation, reporting, and institutional memory.

On the creation and storage side, digital transformation shows up through the use of various systems and applications. Andieni handles correspondence creation, disposition, and follow-up. The Finance Unit utilizes Oracle and MDK. The Research Unit utilizes Andieni, RISE, Sipurwa, NAS, Google Drive, and Excel. The Records Unit utilizes Excel for recapitulation of inactive records and Simantav as the repository for student final projects. Several units also use Google Drive through official vokasi.ac.id accounts, office computers, external hard disks, and Vokasi NAS.

Hybrid management patterns continue despite the use of digital systems. Some business processes are carried out digitally while others still use physical documents. AT3 mentioned that records from the Education Unit are stored in both physical and digital formats. Within Departmental Units, physical records are kept in plastic folders and binders according to specific classifications while digital records are stored in unit computers, NAS, OneDrive and external hard drives. RT5 from the Finance Unit explained that documents generated by Oracle still need to be printed because they require wet signatures, which are then scanned and re-uploaded into the system. NS7 from the Research Unit also indicated that wet signatures and physical stamps remain

mandatory for several grant programs and cooperation-agreement documents. These findings suggest that the digital record transformation at Vokasi UI has not entirely supplanted manual workflows, which still coexist with physical documentation.

The main problem that surfaces here is storage fragmentation. Digital records are spread across office computers, NAS servers, cloud storage and external hard disks, WY1 noted. WN6, from the Human Resources Unit, pointed out that records stay within individual units and are not yet integrated. HR4, head of the Academic Quality Assurance Unit, said digital records in her unit are still spread across staff. AR2, the Education Manager, described the difficulty of retrieving records in study programs because documents were kept by different individuals on separate computers. Digital records, in other words, do not yet sit inside one centralized, uniform management ecosystem.

There is also an interesting gap between the IT perspective and the perspective of the units that actually use these systems. DS8 from IT said NAS is technically integrated, since it sits on one server used by units across Vokasi UI. From the users' side, though, that integration is not really experienced institutionally, because each unit still manages its own folder structures, access rights, storage structures, and file naming independently. Technical integration, in other words, does not automatically add up to records management integration — the latter needs shared standards for classification, metadata, access rights, retention, and procedure across units.

The Finance Unit comes across as more organized than several other units, largely because its work is shaped so heavily by audit rules, Oracle, MDK, and financial accountability requirements. RT5 explained that financial document naming follows payment request numbers, invoices, activity descriptions, figures, and dates, which makes records easier to retrieve. The Research Unit also shows fairly structured practice, using functional classification in NAS — research, community service, innovation, law, and finance — further divided by program, year, and lecturer name. The Human Resources, Education, and Academic Quality Assurance units, by contrast, still lean heavily on Google Drive, staff computers, and individual file-naming habits.

Overall, then, records management at Vokasi UI can be described as partially digitized but not yet mature as an integrated digital records management system. Digitization is there — Andieni, NAS, Google Drive, Oracle, MDK, RISE, Sipurwa, Simantav, Excel, and other systems all play a part — but digital records management still runs into fragmentation, inconsistent file naming and folder structures, weak metadata, uneven understanding of digital retention, and the lack of a dedicated integrated digital records management system at the Vokasi level. This lines up with Dinneen and Julien [24], who show that digital file management is a routine yet genuinely complex activity, involving naming, storing, navigating, finding, sharing, and deleting files across very different work contexts.

4.3. Digital Maturity at Vokasi UI

Digital maturity is examined here through five components: governance and policy; digital records management processes; systems, technology, and integration; access, security, and reliability; and continuous evaluation and development. Based on the

interviews, Vokasi UI's digital maturity can be placed somewhere between developing and partially defined, but not yet fully managed or integrated. Put differently, some practices are already in place and repeated, but they are not yet backed by standards, systems, and evaluation mechanisms built specifically for digital records.

This categorization follows from the idea that a maturity assessment maps an organization's actual condition rather than simply counting whether digital applications exist. Teichert [7] stresses that digital maturity models weigh strategy, process, technology, and organizational culture together, and Aras and Büyüközkan [8] note that a digital maturity assessment helps organizations understand where they stand and define a direction for transformation. Within records management specifically, Santos and Sousa [11] argue that the maturity of archival document management should be judged by an organization's capacity to organize, maintain, and sustain archival documents in a digital environment.

Digital Records Governance and Policy. From a governance standpoint, most informants said Vokasi UI does not yet have an internal SOP dedicated to digital records management. WY1 explained that Vokasi UI has not developed its own internal SOP or policy governing digital records management and still relies on policies from the UI Records Office or the Rectorate. NS7 said much the same — that the unit still refers to UI-level policy, since Vokasi UI has not developed specific internal rules of its own. HR4 said her unit only refers to UI SOPs and that socialization of these rules is limited. AR2 added that digital document management within Andieni is often based on what others have already done rather than on written regulations staff have actually read.

These results show that the digital records governance at Vokasi UI still lacks a solid internal framework. The policy at the university level is a reference point, but it has not been translated into operational SOPs at the level of Vokasi or the unit. Under records management principles, policy and responsibility are what keep records managed consistently; without internal SOPs, each unit tends to develop its own practices based on immediate need and habit.

The division of responsibilities remains suboptimal. While the responsibility for records management has been structurally defined, its implementation remains weak. WY1 reported that after a colleague retired, she was the only employee left doing records management for each unit. This situation also hampers monitoring of records management compliance across units. WN6 stated that record creators should store these records in the Human Resources Unit, on their individual computers. AR2 cautioned that records become difficult to retrieve when only a few staff members maintain them and staff turnover occurs. These observations indicate that responsibility for digital records has not been fully institutionalized and remains largely individualized.

Digital Records Management Processes. Digital records management processes are not uniform across units. Some units already show fairly good grouping patterns. In the Education Unit, according to AT3, records are generally numbered and classified by

type and function. The Research Unit organizes folders by functional classification — research, community service, innovation, law, and finance — then divides them further by program, year, and lecturer name. The Finance Unit follows naming standards based on payment request number, invoice, description, amount, and date, all pulled from Oracle. Practice in the Education and Research units leans closer to records management principles, in part because the unit coordinators, AT3 and NS7, both have archival education backgrounds. In the Finance Unit, although record storage does not fully follow archival classification and chronology, the practice still shows relatively higher maturity, since the unit's work demands strong accountability and is backed by fairly rigid transaction systems.

Other units still run into problems with file naming and folder structures. WN6 explained that file naming in the HR Unit depends on each document creator's own habits; when file names diverge, retrieval gets harder, and staff sometimes have to guess how a particular colleague names things. HR4 said folders in the Academic Quality Assurance Unit reflect activity content but do not follow any formal archival standard. AR2 noted that file names have been made fairly detailed — draft versions, signed versions, revised versions — but storage still depends on individual staff computers. Observations in the Education Unit's storage system, particularly within the Social Humanities department, likewise showed storage following each staff member's own habits rather than a formal records classification scheme.

Metadata is another area that has not matured. WY1 said digital records still lack systematically structured metadata such as automatic dates, creators, or archival status. WN6 mentioned only simple metadata kept in Excel — type of letter, document creator, description. NS7 said metadata exists but is incomplete, since records lists are compiled per file group rather than per document item. The Finance Unit indicated that metadata is available but tied specifically to financial system needs, such as payment numbers, invoices, descriptions, and dates.

Digital retention shows a clear weakness too. WY1 explained that Vokasi UI refers to the UI Records Retention Schedule, but implementation still centers on inactive physical records. WN6 did not understand digital retention rules and said documents are simply stored until physical disposition happens. HR4 said there is no retention rule in her unit at all. AR2 also did not know about digital records retention, despite having once destroyed physical records after digitizing them as backup. NS7, by contrast, said retention in the Research Unit averages three to five years and applies to both physical and digital records. The variation here is an indication that digital retention is not uniformly practiced or institutionalized.

Taken together, digital records management processes at Vokasi UI can be described as partially standardized. Some units have reasonably good structures in place, but institutionally there is no single standard for file naming, classification, metadata, retention, or disposition of digital records. Weaknesses in metadata and retention matter a great deal here, since both are essential for preserving the context and life cycle of digital records. ICA [5] frames metadata as necessary for linking records to their creation context and maintaining authenticity, reliability, integrity, and usability, while Asogwa [12] shows that higher education institutions without strong organizational and

policy frameworks tend to be unprepared for sustainable electronic records management.

Systems, Technology, and Integration. On the systems and technology side, Vokasi UI runs a variety of digital applications. Andieni serves as the electronic correspondence system. NAS is provided by IT as shared storage. Google Drive is used across several units. Oracle and MDK belong to the Finance Unit. RISE and Sipurwa belong to the Research Unit. Simantav handles final project administration, and Excel is used for records lists and recapitulation.

However, the adoption of numerous systems has not been accompanied by integration with records management. WY1 indicated that digital record storage is not yet unified across units. WN6 reported that each unit maintains its own Drive. HR4 noted that records remain dispersed. AR2 observed that records are stored on individual staff computers. DS8 from IT acknowledged that the NAS is technically integrated, yet folder standards and retrieval mechanisms are still handled by each unit. As a result, technology integration remains infrastructure and has not yet achieved records-management integration.

Digital record retrieval is a mixed picture too. Some informants said retrieval is fairly easy thanks to built-in search functions in Windows, Google Drive, NAS, or transaction systems such as Oracle and MDK. But how easy retrieval really is depends heavily on consistent file naming and folder structures. WN6 pointed out that searching the internal Drive often comes down to remembering each staff member's own naming style. WY1 said Excel helps retrieve archival data but is still far from an ideal digital records retrieval system. NS7 said retrieval remains largely manual, since there is no dynamic records management application, although a tidy folder structure does help.

System and technology maturity, then, can be read as relatively developed on the infrastructure side but not yet mature from a records management standpoint. The technology is there, but it has not been configured to support institutional classification, metadata, retention, audit trails, access, preservation, or disposition. This reinforces the point that having digital systems in place does not automatically mean an organization is ready for electronic records management. Mukred et al. [13] stress that ERMS readiness in higher education needs records managers, archivists, administrators, and IT personnel working within one framework, and Yang et al. [2] similarly show that digital transformation of records management through ERMS has to account for long-term system performance and how effective the standards actually are.

Access, Security, and Reliability of Digital Records. Access control is mostly handled at the unit level. DS8 explained that NAS uses role-based access by unit and can assign differentiated access rights — finance records, for instance, can only be reached by the Finance Unit, with layered access possible even within the unit. RT5 confirmed that financial access is limited to Finance Unit staff. WN6 said HR Drive access is restricted to the HR team, while some confidential physical documents sit in locked cabinets. NS7 said staff and managers have full access, and external requests should ideally go through an information request form. AT3 explained that in the

Education Unit, managers, coordinators, and relevant staff can access and download digital records, while only the record's creator can modify or share it.

In terms of authenticity, the situation is not yet uniform. NS7 explained that letters from Andieni have QR codes and can verify the signing information, but not all archive creation uses Andieni. RT5 explained that the authenticity of financial documents is maintained through a multi-layered system or equalization of approvals from staff to management based on transaction value, but this applies to printed records. For ordinary digital documents that do not go through an official system like Andieni, ensuring their authenticity is still weak. WY1 stated that because there is no specific standard digital records management system, the authenticity and integrity of digital records cannot be guaranteed systematically. DS8 also mentioned that e-signature certificates are only held by certain parties, especially top management, so authority at the unit level is still limited.

Backup mechanisms exist but are neither evenly applied nor fully formalized. WY1 keeps backups on NAS and external hard disks. DS8 explained that NAS uses RAID and that hard disks get replaced when performance drops. RT5 uses three forms of backup — NAS, MDK, and hardcopy. NS7 stores records on office PCs and NAS. WN6, by contrast, said there is no backup beyond Drive and acknowledged the risk of losing data as a result. AR2 said there had been external hard disk backups at some point but was not sure whether they were still around.

Access and security for digital records at Vokasi UI, then, have started to be managed, especially in units that use NAS or official systems, but the reliability of digital records as authentic evidence is not yet fully assured. This aspect of maturity sits at a moderate level: access control and backup practices exist, but they are not yet backed by a digital records system capable of guaranteeing authenticity, integrity, audit trails, and long-term preservation. ICA [5] stresses that electronic records systems need to support the creation, maintenance, dissemination, and administration of records so they stay usable and accountable, while Digital Preservation Testbed warns that digital information is vulnerable to changes in format, media, software, and technological environment. Backup alone, in other words, is not enough — organizations also need access control, audit trails, preservation metadata, and procedures that keep digital records authentic and usable over time.

Continuous Evaluation and Development. Evaluation is the weakest link in Vokasi UI's digital maturity. WY1 said archival supervision from the university runs routinely and that Vokasi UI's score is good, but there has never been an in-depth evaluation focused specifically on digital records governance. DS8, WN6, HR4, and AR2 all said the same — there has never been a dedicated evaluation of digital records at either the Vokasi or unit level. NS7 explained that the university does conduct archival supervision annually, but it does not specifically evaluate digital records as their own object of assessment.

These findings indicate that archival evaluations are still general and not specifically directed at digital records management. However, within the concept of digital maturity, regular evaluations are crucial to ensuring an organization's ability to map its current position, identify gaps, and develop a digital transformation roadmap. Without

regular, dedicated evaluations, improvements tend to be reactive and rely solely on immediate needs such as audits, accreditation, or document requests.

Taken as a whole, Vokasi UI's digital maturity sits at roughly the repeatable-to-defined level. Digital records management practices have been put into place and repeated in several units, but comprehensive standards, integration, evaluation, and a mature digital records system are still missing. The Finance and Research units show comparatively higher maturity thanks to structured systems, classification, and accountability demands. The Human Resources, Education, and Academic Quality Assurance units also carry out digital practices, but they lean more on individuals, Google Drive, staff computers, and unit habits. Under maturity model logic, moving toward the managed and optimized levels from here will require stronger standards, integration, evaluation, and continuous improvement.

4.4. Digital Readiness at Vokasi UI

Conceptually, digital readiness explains the prerequisites that allow digital maturity to grow. Soomro et al. [9] frame readiness through digital skills, digital tools and applications, digital systems and infrastructure, and digital ecosystem and culture. Michelotto and Joia [10] add that organizational digital transformation readiness covers technological resources, business processes, management capability, human capability, and corporate culture. Readiness at Vokasi UI, then, needs to be read not just through the ability to use digital systems but also through the readiness of human resources, governance, coordination, work culture, and organizational support for digital records management.

Human Resource Readiness and Digital Literacy. Human resource readiness shows a somewhat mixed picture. On one hand, several informants said staff are perfectly capable of using digital systems in practical terms. DS8 described human resources as capable. WN6 said staff are reasonably capable when it comes to file naming and digitization. RT5 said finance staff are ready from an accounting-expertise standpoint. HR4 and AR2 both used almost the same phrase: staff are practically ready but not conceptually ready.

That last point stands out as an important finding. Staff and lecturers are generally comfortable using digital applications such as Andieni, Google Drive, Excel, NAS, Oracle, MDK, and others. Conceptual understanding of digital records as institutional records, though, is uneven. WY1 said most staff and lecturers do not yet grasp the basic difference between an ordinary digital document and a digital record carrying legal value as authentic evidence of institutional activity. WN6 said outright that she did not know the difference between digital documents and digital records. HR4 and AR2 said much the same, and DS8 likewise noted that many lecturers and education staff do not understand the distinction.

This points to a gap between digital skill and records management literacy. Staff can use digital applications well enough, but that does not necessarily mean they understand digital records principles, evidential value, retention, authenticity, metadata, or

institutional responsibility. In terms of digital readiness, technical operational readiness has begun to take shape, while conceptual archival readiness still needs work.

The limited number of archival human resources is a crucial issue on its own. WY1 said the records unit has been handled by just one person since a colleague retired, which means work stays focused on maintaining conventional or inactive physical records rather than pushing digital records development as a real priority. NS7 added that in the Research Unit, only one staff member has an archival education background. Archival capacity, in short, has not been distributed evenly across units.

The findings regarding the gap between technical skills and conceptual understanding align with Deja et al.'s [19] statement, which places information literacy as a crucial factor in digital transformation readiness in academic environments. In the context of digital records, this literacy encompasses not only the ability to use applications but also understanding the value of evidence, the context of record creation, retention, access, metadata, and accountability. Therefore, training at UI Vocational School needs to be directed not only at system usage but also at digital records management literacy for lecturers, educational staff, and unit managers.

Technology and Infrastructure Readiness. From a technology standpoint, Vokasi UI already has several important assets: NAS, official Google Drive accounts, Andieni, Oracle, MDK, RISE, Sipurwa, Simantav, and other supporting applications. DS8 explained that NAS functions as shared storage, accessible based on unit roles and backed up regularly. Having NAS and RAID in place shows that Vokasi UI has laid down an important technological foundation for storage.

Even so, technology readiness does not yet fully meet the demands of mature digital records management. Common obstacles include storage capacity, hard disk age, replacement budget, and the absence of a dedicated digital records management information system. DS8 said the main IT priority right now is increasing storage capacity, since hard disks have a limited lifespan and past budget requests have been turned down on efficiency grounds. AR2 said infrastructure is not yet sufficient because it stays limited to PCs, hard disks, and systems that do not talk to each other.

Technology, in other words, is available but has not been specifically directed toward an electronic records management system. NAS handles storage, Andieni handles correspondence, Oracle and MDK handle finance, and Google Drive serves as a general work medium — but no system specifically manages the digital records life cycle from creation, metadata, and classification through retention, access, audit trails, preservation, and disposition. Asogwa [12] found that university readiness cannot be judged by the presence of technology alone; it also needs e-records frameworks, infrastructure, and structural facilities, while Machado et al. [6] stress that digital readiness is a combination of technology, process, people, and organization together.

Organizational Readiness and Leadership Support. Leadership support for digital records management does exist, but it is not yet consistent in the form of policy, human resources, budget, and a roadmap. WY1 said leadership support has been good — the provision of archival space, for example — though additional support is still needed in

the form of archival human resources and budget for digital system development. DS8 viewed management support as insufficient on the funding side, especially for storage needs. WN6 hoped leadership would provide clearer direction so records management would not keep running separately in each unit. NS7 said unit-level managerial support is good, but at the broader level, the position of records after organizational restructuring remains unclear. HR4 said leadership support exists but leans more toward developing applications for services than toward records specifically. AR2 mentioned support in the form of establishing Pusdatin and a planned digital repository.

These findings point to organizational support being partial at best. Leaders support digitization broadly, but not all of that support is aimed specifically at digital records management, and organizational restructuring has added its own uncertainty about where records sit within Vokasi UI's governance structure. Digital records transformation needs clear leadership, a division of roles, coordination across units, technical policy, and support for budget and human resources.

Organizational readiness also shows up in less-than-optimal coordination between units. WN6 described how each unit still works separately, leading to duplicated document scanning — a document already scanned by one unit may get scanned again by another simply because there is no shared, centralized reference point. This points to the absence of an efficient cross-unit architecture for digital records management, echoing Michelotto and Joia's [10] point that management capability and business processes are important components of digital transformation readiness.

Digital Work Culture. A digital work culture has taken shape at Vokasi UI in the sense that staff and lecturers are used to creating, storing, and distributing records digitally. A records-management-oriented digital work culture, though, has not fully developed. Many units use Andieni, Google Drive, NAS, and other systems, but storage patterns, file naming, classification, and access arrangements are still shaped by unit habits rather than shared standards.

WN6 pointed to culture and mindset as the main obstacles — habits are hard to change without firm rules, in her view, and staff would find it easier to follow rules issued at the leadership level. Cultural readiness, in other words, cannot be built through technology use alone; it needs habits, rules, socialization, and monitoring behind it.

HR4 and AR2 both raised perception and understanding as issues. HR4 said perceptions of digital records — what they are for and how to manage them — are not yet aligned, since staff come from different educational and training backgrounds. AR2 added that not every unit is even aware of the need to manage digital records properly. Digital work culture, then, is stronger on the tool-use side than on records management awareness.

An inconsistent digital work culture also impacts the risk of individual dependency. AR2 mentioned that records in educational units are well-managed by certain staff, but he once experienced difficulty finding records in study programs because they were stored by different people. This suggests that when digital records are managed based on individual habits, the continuity of institutional access becomes vulnerable. Units tend to rely heavily on specific individuals to properly maintain their records. If these individuals are absent or leave their jobs, business processes will be disrupted. This

dependency phenomenon is called key employee dependency. According to Ardiphiene [25], a key employee is someone who cannot be easily replaced. The departure of a key employee not only means lost sales, credit, and growth opportunities but can also mean the loss of the business itself.

This finding demonstrates that a digital work culture is not the same as a digital records management culture. Teichert [7] highlights the importance of organizational culture in digital maturity models, as the success of transformation is determined not only by technology but also by user habits, perceptions, and behaviors. Therefore, UI Vocational needs to build a work culture that is not only accustomed to using applications, but also adheres to standards for naming, classification, metadata, retention, access rights, and storage of digital archives.

4.5. Obstacles in Digital Transformation of Records Management

There are several major obstacles to the digital transformation of UI Vocational School's records management. The first obstacle is limited human resources for records management. WY1 emphasized that the records unit is only managed by one person, so digital development cannot run optimally. The second obstacle is the lack of internal SOPs specifically for digital records. Many informants stated that they had not seen written rules regarding file naming, folder structure, storage, retention, and access to digital records. As a result of this lack of rules, some staff store and manage records in their own habits, which can lead to a silo mentality. According to Jeske and Olson [27], a silo mentality is a situation where individuals or teams in an organization view themselves as separate, relatively independent groups, and are more focused on their internal interests than on the overall goals of the organization. A silo mentality becomes a barrier to achieving organizational goals because it prevents people from sharing information and collaborating.

The third obstacle is limited infrastructure and budget. DS8 pointed to storage needs, hard disk lifespan, RAID, and the budget required to replace devices. AR2 considered the infrastructure insufficient simply because systems are not integrated. The fourth obstacle is uneven digital records literacy — WY1, WN6, HR4, AR2, and DS8 all indicated that many staff and lecturers still do not understand the difference between an ordinary digital document and a digital record as institutional evidence. The fifth obstacle is a work culture that still runs separately by unit, which leads to duplicated storage and parallel document management practices.

Informants were fairly consistent about where improvement should focus. WY1 emphasized additional archival human resources, internal SOPs for digital records, and an integrated digital records management information system. DS8 emphasized more storage capacity and better management understanding of infrastructure needs. WN6 emphasized leadership direction, strategic planning, and centralized storage. RT5 emphasized digital records literacy from upstream to downstream processes. NS7 emphasized standard file naming, folder structures, and safe procedures for borrowing digital records. HR4 emphasized shared understanding, while AR2 emphasized infrastructure and unit-level awareness.

Based on all this, Vokasi UI's digital readiness can be described as relatively strong in day-to-day technology use but still lacking in archival digital readiness specifically. Practical readiness is visible, but conceptual, institutional, policy, and integration readiness still need strengthening. Readiness, in that sense, is an important part of why Vokasi UI's digital maturity has not yet reached the managed or optimized stage — a relationship consistent with Soomro et al. [9] and Michelotto and Joia [10], both of whom treat human, technological, process, management, and cultural readiness as prerequisites for a successful organizational digital transformation.

5. Conclusion

The digital transformation of records management at Vokasi UI is underway, but it is still in a transitional stage. Digital systems are widely used, yet digital records management does not yet fully meet the standardized, integrated, and sustainable principles that records management calls for. On the maturity side, Vokasi UI already has some good practices to build on, including its use of multiple business-process systems and the archival supervision it receives from the university. The Finance and Research units show more structured practice thanks to their systems and accountability needs. Overall maturity, however, is held back by the absence of internal digital records SOPs, inconsistent file naming and folder structures, immature metadata and digital retention, the lack of an integrated digital records system, and the absence of dedicated digital records evaluation.

On the readiness side, Vokasi UI already has some capital to work with — application use, NAS, support from several unit leaders, and prior training from UI or Vokasi. Readiness remains weak, though, in archival human resources, digital records management literacy, budget, system integration, disciplined digital work culture, and a development roadmap. The most important finding here is the gap between practical readiness and conceptual readiness: staff and lecturers can use digital applications well enough, but not all of them understand digital records as institutional records carrying evidential value, retention requirements, metadata, access, security, and accountability obligations.

Given all this, the digital transformation of records management at Vokasi UI cannot be solved simply by adding more applications or storage. It calls for an institutional approach spanning policies, SOPs, classification, metadata, digital retention, file-naming standards, folder structures, access control, backup, archival information systems, training, additional archival human resources, and periodic evaluation. Digital maturity can only improve if the organization's digital readiness — human resources, technology, culture, and leadership support together — is strengthened at the same time.

Based on the analysis, several recommendations follow. First, Vokasi UI needs to formulate internal SOPs for digital records management that refer to UI Records Office policy but are adapted to the needs of Vokasi's own units. Second, standards for file naming, folder structures, minimum metadata, and digital records classification should be developed and applied consistently across units. Third, an integrated digital records

system or repository should be built — not just as storage, but as a system that genuinely supports records management principles. Fourth, training specifically on digital records should be provided, not just training on how to use applications. Fifth, archival human resources should be increased, or archival focal points appointed within each unit. Sixth, periodic evaluation specifically targeting digital records management should be carried out so that progress in digital maturity can be tracked systematically.

These recommendations line up with ISO 15489-1:2016 [4] and ICA (2008), both of which stress policy, responsibility, metadata, access control, maintenance, and administration of electronic records. They are also consistent with Mukred et al. [13] and Yang et al. [2], who show that successful electronic records management depends on frameworks, standards, cross-role involvement, and long-term system evaluation. A digital records management roadmap for Vokasi UI, then, should tie together policy, human resources, technology, records management processes, and work culture into a single, measurable transformation program.

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