Finance and Business Management Journal
Vol. 4, No. 1, 2026
https://ejournal.unma.ac.id/index.php/fbmj
e-ISSN : 3025-1095

Digital Administration and Electronic Records Management for Strengthening Governance at Universitas Majalengka

Abdul Aziz Hidayat[1], Asep Suhada[2]
[1,2] Public Administration, Faculty of Social and Political Sciences, Universitas Majalengka, Majalengka, Indonesia
abdulazizprakasa01@gmail.com[1], asepsuhada@unma.ac.id[2]

Submit: 2023-10-25	Accepted: 2023-12-13	Published: 2023-12-30

ABSTRACT

Digital transformation in higher education requires changes that extend beyond the mere use of applications. Academic administration, correspondence, human resources, student affairs, finance, quality assurance, and records management need to operate within an integrated, secure, auditable, and user-oriented information ecosystem. This article aims to develop a digital administration and electronic records management model relevant to Universitas Majalengka. The study employs an integrative literature review combined with a conceptual analysis of publicly available information concerning the university's digital services. The thematic analysis covers digital transformation strategies, information governance, service integration, the records life cycle, information security, user experience, human resource capabilities, and change management. The findings produce a six-layer model consisting of strategic direction and policy; process and service architecture; data and records governance; technology and integration; security, privacy, and service continuity; and human resource capabilities and digital culture. The model is operationalized through a four-stage roadmap encompassing mapping and standardization, integration of priority services, strengthening of records management and analytics, and continuous optimization. This article emphasizes that an integrated portal and academic information system constitute an essential foundation. However, their institutional benefits are determined by the ability of each transaction to generate authentic records supported by consistent metadata, retention schedules, access controls, audit trails, and evaluation mechanisms. The proposed framework can support readiness audits, policy development, and digital administration planning at Universitas Majalengka. This model requires validation through interviews, process observations, system audits, and user surveys before implementation.

Keywords: digital administration; digital transformation; electronic records; information governance; Universitas Majalengka

DOI: https://doi.org/10.31949/fbmj.v1i2.19528

Copyright © 2024 Finance and Business Management Journal, Faculty of Economics and Business, Universitas Majalengka. All rights reserved.

INTRODUCTION

Universities are knowledge-based organizations that produce and use information in almost every activity. Student admissions, registration, schedule preparation, lectures, assessments, graduation, alumni services, research, community service, personnel, finance, cooperation and quality assurance form a series of transactions that must be documented. When these transactions take place digitally, administration is no longer just moving paper forms to the screen, but instead builds systems that are able to guarantee data accuracy, traceability of decisions, continuity of service, and availability of institutional evidence.

Digital transformation is different from digitization and digitalization. Digitization converts analog objects into digital form, for example scanning documents. Digitalization uses technology to improve

Finance and Business Management Journal
Vol. 4, No. 1, 2026
https://ejournal.unma.ac.id/index.php/fbmj
e-ISSN : 3025-1095

existing processes, for example electronic disposition. Digital transformation changes the way organizations create value, manage processes, make decisions, and interact with users. Mergel, Edelmann, and Haug (2019) place digital transformation as a comprehensive change that is driven by organizational needs and results in changes to processes and services. Vial (2019) also shows that transformation is born from the interaction of technology, organizational structure, strategy and human responses to change.

The implication for higher education institutions is the need to view digital administration as a governance agenda. Procuring applications without process design can create duplication, siloed databases, and a burden of repetitive entries. Verhoef et al. (2021) emphasize that digital transformation requires changes in organizational resources, structures, metrics and capabilities. Thus, the measure of success is not the number of applications, but reduced service time, increased accuracy, the creation of a single, trustworthy data source, the protection of personal information, and the availability of authentic archives for accountability.

Higher education literature shows that digital transformation has technological, organizational, social and strategic dimensions. A systematic review by Benavides et al. (2020) shows that leadership, culture, skills, processes, infrastructure and stakeholders determine each other. Alenezi (2021) emphasizes the need for a model that unites strategy, processes, people and technology. This is important because academic and administrative units often have different needs, while students and faculty expect a simple and consistent service experience.

Universitas Majalengka has a relevant context for the development of digital administration. The institution's public information states the vision of strengthening good university governance. The university also provides the SATU UNMA digital service gateway and the SIMAK NG guide as academic services. The existence of an integrated portal shows that there is a foundation for integration on the access side. However, this article does not audit the architecture, security, data quality, or internal processes of those systems. Public information is used only to establish context and avoid the assumption that the university is starting from a state without digital services.

An integrated portal does not automatically mean that processes and data are integrated. Integration in views can still hide out-of-sync databases, different data definitions, and repetitive procedures. Diaz-García et al. (2023) show through university case studies that transformation management requires strategic coordination, process structuring, and organizational involvement. The key challenge is to link technology initiatives to institutional priorities, rather than allowing each unit to develop its own solutions without shared standards.

Digital administration also cannot be separated from records management. Every academic and administrative decision produces evidence: decrees, contracts, attendance lists, grades, transcripts, minutes, financial reports, accreditation documents, cooperation documents, and correspondence. If evidence is only stored as files in private folders or message attachments, organizations face the risk of loss, untracked changes, difficulty in retrieval, and unclear versions. Brown and Toze (2017) view information governance as a bridge that connects legacy systems with the digital environment and ensures that information remains useful for decisions and accountability.

Electronic records management must be managed throughout the life cycle. Archives are created or received, registered, classified, assigned metadata, used, stored, maintained, assessed for retention, then legally destroyed or preserved permanently. Tsvuura and Ngulube (2021) found that digitization programs in universities can operate without an adequate framework and recommend a centralized approach and integrated systems. The findings are relevant for any higher education institution seeking to avoid mass scanning without classification, retention, quality control, and preservation strategies.

The growing volume of information is driving the use of automation and artificial intelligence. Rollan et al. (2019) and Colavizza et al. (2022) demonstrate the opportunities for AI in classification,

Finance and Business Management Journal
Vol. 4, No. 1, 2026
https://ejournal.unma.ac.id/index.php/fbmj
e-ISSN : 3025-1095

description, search, and archive access, but also highlight issues of bias, transparency, and responsibility. In the context of Universitas Majalengka, automation should be placed after the foundations of metadata, classification and data quality are in place. AI cannot repair archives that are incomplete, inconsistent, or lack the context of their creation to begin with.

The user perspective is as important as the system architecture. Bond et al. (2018) found that the availability of technology in higher education does not always result in widespread or transformative use. Castañeda and Selwyn (2018) caution that the digitalization of education needs to be understood as a change in practices and relationships, not a collection of tools. Henderson, Selwyn, and Aston (2017) show that students rate technology as useful when it is relevant to real needs. For digital administration, the key lesson is that every service should be tested based on user journey, clarity of information, number of steps, accessibility and completion time.

Change management becomes decisive because digitalization affects authority, habits and work identity. Employees may lose control over informal procedures, have to learn new standards, or find their activities easier to monitor. Jackson (2019) emphasizes the importance of competency and managing innovative change in higher education. Resistance does not necessarily mean rejecting technology; it can signal inappropriate design, insufficient training, transition burden, or unclear benefits.

The obstacles to higher education's digital transformation have been mapped extensively. Gkrimpizi, Peristeras, and Magnisalis (2023) grouped barriers into vision and strategy, leadership, organization, resources, competence, technology, stakeholders, culture, academics, ethics, and external factors. The classification shows that failures cannot be resolved simply by increasing server capacity. Higher education needs decision mechanisms, investment priorities, data standards, process managers, user support, and benefit measurement.

Transformation risks also need to be considered. García-Peñalvo (2021) warns of the dark side of digitalization in the form of unethical data use, technology dependence, and weak e-learning governance. The university administration processes certain identity, academic, financial, health data and legal documents. Access rights management, consent, data minimization, encryption, backup, recovery, and activity logging should be part of the design from the start, not an add-on after an incident.

Information technology governance helps ensure investments and risks are aligned with organizational goals. Veerankutty, Ramayah, and Ali (2018) show the relationship between IT governance mechanisms and the performance of using audit technology in the public sector. For universities, IT governance requires clarity on who sets priorities, who owns the data, who is responsible for processes, who manages systems, and who audits compliance. Without such division, data disturbances or errors are easily transferred from one unit to another.

Higher education strategies must link digital transformation with institutional excellence and sustainability. Mohamed Hashim, Tlemsani, and Matthews (2022) position digital transformation as part of higher education strategy, not a separate technical project. Kuzu (2020) also shows the importance of representing digital transformation in higher education strategic plans. This means that digital administration needs to have targets, indicators, funding, program owners, and stages that are included in institutional planning.

The bibliometric mapping by Díaz-García et al. (2022) shows that higher education digital transformation research is evolving around technology, culture, leadership, competence, and organization. This pattern supports the use of a socio-technical approach. A good system must be technologically feasible, socially acceptable, regulatory compliant, and maintainable. The decision to choose an app because it is popular is not enough; universities need to assess interoperability, data ownership, lifecycle costs, export capabilities, vendor support, and dependency risks.

Digital administrative management can be understood as the integrated arrangement of policies, processes, people, data, archives and technology to produce effective administrative services and

Finance and Business Management Journal
Vol. 4, No. 1, 2026
https://ejournal.unma.ac.id/index.php/fbmj
e-ISSN : 3025-1095

trustworthy institutional evidence. This definition places archiving as the core part, not the final activity after the document is completed. Each process must determine what records are produced, what metadata is mandatory, how long it is kept, who is allowed access, and how authenticity is maintained.

This article aims to formulate a digital administration management model and electronic records management to strengthen the governance of Universitas Majalengka. The analysis questions are: what elements must be built so that digital services are integrated and user-oriented; how electronic records management is embedded in administrative processes; what risks and obstacles must be managed; and what are the realistic implementation stages. The article does not assess the performance of the running system and does not use internal data, so the results are in the form of a normative model that requires empirical validation.

METHODS

The research uses integrative literature study and conceptual analysis. An integrative approach was chosen because the topic of digital administration brings together the literature on digital transformation, higher education, information governance, records management, user experience, security, and change management. This method allows for the preparation of cross-field syntheses to produce an implementation framework, but is not intended as an empirical evaluation of Universitas Majalengka.

Scholarly sources were limited to articles published 2015–2023 to fit research needs and reflect state-of-the-art discussions prior to the explosion of generative AI literature. Inclusion criteria include: articles through a scientific process; relevant to digital transformation, higher education, information governance, electronic archives, or IT governance; have a verifiable DOI on the publisher's page; and provide concepts or findings that can be translated into digital administration design.

A total of 20 articles were selected purposively based on conceptual relevance and theme representation. The source composition includes general digital transformation studies, higher education transformation research, user experience studies, barrier studies, strategy and change management studies, information governance, digitization of university archives, artificial intelligence in archives, and information technology governance. Purposive selection does not claim systematic coverage of the entire literature and is one of the limitations of the study.

Each article was read to identify units of meaning related to the goals, drivers, dimensions, barriers, risks, practices, and outcomes of digital transformation. Meaning units were then coded into eight initial themes: strategy, service process, data, archives, technology, security, people, and evaluation. Overlapping themes are combined, while themes that have different functions are retained.

The coding results are synthesized into six model layers. The organization of layers is based on dependency relationships: strategy gives direction to the process; the process of producing data and archives; technology supports the process; security protects all layers; humans operate and improve systems; and evaluation links results back to strategy. The model is then translated into a four-stage roadmap so it can be used in planning.

Universitas Majalengka public information was used on a limited basis to adjust the language and starting point of the model. The official website shows the existence of the SATU UNMA service gate, SIMAK NG guidelines, as well as orientation on good university governance. This information is not used to infer maturity levels, database integration, archive compliance, security, or user satisfaction as these aspects require internal access and testing.

Conceptual validity is maintained through triangulation between literatures. Each component of the model is supported by more than one study group, for example integration is supported by transformation literature and higher education strategies, while archiving is supported by information

Finance and Business Management Journal
Vol. 4, No. 1, 2026
https://ejournal.unma.ac.id/index.php/fbmj
e-ISSN : 3025-1095

governance and university archives studies. Citation consistency was checked so that all references in the text were listed in the bibliography and all 20 articles had a DOI.

The analysis does not involve humans, personal data, or internal documents. Therefore, the article does not present percentages, interview results, or audit findings about Universitas Majalengka. The terms results and discussion refer to the results of the literature synthesis and model design. Real implementation requires further research in the form of process mapping, service owner interviews, records audits, risk analysis, and user experience surveys.

RESULTS AND DISCUSSION

Synthesis shows that digital administration needs to be built as an ecosystem, not a collection of applications. Ecosystems have shared goals, cross-unit standards, data exchange, user identity, monitoring mechanisms, and improvement cycles. Mergel et al. (2019), Vial (2019), and Verhoef et al. (2021) place organizational change at the heart of transformation. Therefore, the model for Universitas Majalengka is structured in six interdependent layers.

Table 1. Six-Layer Digital Administration Management Model

Layer	Focus	Main output
1	Strategic direction and policy	Vision, principles, roles, and portfolio
2	Process and service architecture	Streamlined processes and user journeys
3	Data and records management	Data dictionary, metadata, retention, repository
4	Technology and integration	Identity, integration, modular architecture
5	Security, privacy, continuity	Access control, backup, incident response
6	Digital capabilities and culture	Competencies, change management, and user support

Source: Author's synthesis, 2026.

The first layer is strategic direction and policy. Universities need to establish a digital administration vision that addresses concrete problems, for example repetitive data entry, long service times, difficult to find documents, unclear application status, and weak audit evidence. The vision is then translated into principles: one identity, one valid data source, one input for authorized repeat use, traceable services, automatically generated records, risk-based security, and inclusive access.

The policy must explain the scope and authority. The Chancellor or appointed leader acts as sponsor; the technology unit manages architecture and operations; the administrative unit becomes the process owner; each domain has a data owner; and records managers determine classification, retention and preservation. Brown and Toze (2017) emphasize that information is a core resource that requires governance. This division of roles reduces situations where data is considered to belong to the application or is solely the responsibility of the engineer.

A digital governance committee can be a forum for setting priorities and resolving cross-unit conflicts. Its members need to represent leadership, information technology, academics, finance, personnel, student affairs, quality assurance, law, archives and users. The committee does not take over operational work, but approves standards, program portfolios, key risks, benefit indicators, and data policies. Veerankutty et al. (2018) show the importance of governance mechanisms in encouraging desired technology use behavior.

The second layer is the process and service architecture. Digitalization should start with an inventory of services, not a list of applications. Each service is mapped from request to completion, including actors, conditions, steps, decisions, data, documents, times, exceptions, and complaints.

Finance and Business Management Journal
Vol. 4, No. 1, 2026
https://ejournal.unma.ac.id/index.php/fbmj
e-ISSN : 3025-1095

Processes that do not add value are removed before being automated. If complex paper procedures are transferred directly to applications, universities simply produce digital bureaucracy.

Services can be grouped by user journey. Students need a flow from admissions to alumni; lecturers from recruitment to career development; partners from exploration to evaluation of cooperation; and internal units from planning to reporting. SATU UNMA can be developed as a gateway to a consistent experience, while the integration behind it ensures users don't repeatedly fill in credentials or upload documents that are already validly available.

Service design must prioritize transparent status. Users need to know the request has been received, is being verified, requires correction, is approved, or is complete. The system should explain the reason for the rejection and the next steps. Henderson et al. (2017) show that the usefulness of technology is assessed by its relevance to user needs. Status transparency reduces repeat inquiries and allows units to measure wait times at each stage.

Accessibility and help channels should be standard. The interface needs to be usable via mobile devices, have clear language, legible text sizes, and alternatives for users with disabilities. Bond et al. (2018) show that technology use is not automatically widespread even if devices are available. Universities need to provide guidance, help centers, support personnel, and alternative service lines during the transition.

The third layer is data and records management. Universities need to establish an institutional data dictionary that defines important elements such as active students, permanent lecturers, study programs, courses, semesters, payment status, and graduation. Definitions must have an owner, format, authoritative source, validation rules, and parties who can change them. Without a data dictionary, reports from different systems can produce different numbers.

Master data needs to be managed through authoritative source principles. The identities of students, employees, study programs, courses, units and partners may not be recreated without control. Changes are made to the source and propagated through integration. This principle reduces duplication and improves consistency. However, data unification must be accompanied by limitations of purpose; not all units have the right to see all attributes just because the data is stored centrally.

Electronic records management is attached to every transaction. When a decision is issued or a service is completed, the system must create an archive containing content and context: number, date, author, recipient, classification, final version, relationship to the application, signature or proof of approval, as well as a process trace. Tsvuura and Ngulube (2021) show the importance of a centralized and integrated framework so that university digitization does not proceed without standards.

Records classification can be arranged based on university function, not just organizational structure. Academic, student affairs, research, service, personnel, finance, assets, cooperation, quality assurance and administration functions are the main groups. The functional approach keeps the archive manageable as the unit structure changes. Each archive class has access rules, accepted formats, minimum metadata, and retention schedules.

Retention schedules determine how long active, inactive, and permanent records are kept. Retention needs to consider regulations, audit requirements, student and employee rights, legal evidence, and historical value. Destruction must be documented and approved; Permanent archives are moved to a preservation repository. Keeping all files forever is not a secure strategy because it increases costs, risk of leaks, and difficulty of discovery.

Digitization of paper records requires prioritization and quality control. Documents of high value, frequently used, susceptible to damage, or required for service may take precedence. The process includes preparation, scanning, readability checking, provision of metadata, association with context, duplication control, and assignment of status to the physical original. Scanning without an index simply moves a pile of paper into a pile of digital files.

Finance and Business Management Journal
Vol. 4, No. 1, 2026
https://ejournal.unma.ac.id/index.php/fbmj
e-ISSN : 3025-1095

Digital preservation is different from regular storage. Formats can become outdated, media can become damaged, and systems can change. Universities need to choose a preservation format, perform integrity checks, maintain copies in different locations, log migrations, and test recovery. Rollan et al. (2019) and Colavizza et al. (2022) show that new technologies open up management and access opportunities, but context, authenticity, transparency and ethics must still be maintained.

The use of artificial intelligence can be done gradually once the foundation is in place. Initial uses may include metadata extraction from documents, file type recognition, duplication detection, or search assistance. AI results should not directly translate into destruction decisions or access determinations without human review. The model needs to be tested against the Indonesian language, internal abbreviations, and document variations. Automatic decisions must be explainable and have correction mechanisms.

The fourth layer is technology and integration. The architecture should be modular so that services can grow without replacing the entire system. Identity portals, academic systems, finance, personnel, documents, e-signatures, and archive repositories communicate through standardized interfaces. The integration must send the minimum required data and log exchange failures. Diaz-García et al. (2023) show that transformation is successful when technology is linked to process management and strategy.

Digital identity and single sign-on form the foundation of a unified experience. One institutional account can be used across multiple services with authentication appropriate to the risk level. User roles come from personnel or academic data and change automatically when status changes. Alumni accounts, employees leaving, or students on leave require special rules. Access rights should not remain active just because the account has not been manually deleted.

The choice between in-house development, off-the-shelf software, and cloud services needs to be based on an analysis of needs as well as life cycle costs. Criteria include functionality, security, integration capabilities, data ownership, storage location, exports, support, vendor dependencies, scalability, and exit plans. Benavides et al. (2020) and Alenezi (2021) emphasize the alignment of technology with organizational strategy and capabilities.

The system needs to have separate development, test, and production environments. Changes are tested for functionality, security, data migration, load, and user experience. Major releases are done with communication and recovery plans. Configuration and code documentation should be a university asset. Reliance on a single individual is a sustainability risk that often goes unnoticed until the employee or vendor is unavailable.

The fifth layer is security, privacy, and continuity. Universities need to classify information as public, internal, confidential, or highly restricted. Controls are defined according to classification: multi-factor authentication, encryption, download restrictions, access logging, and custom consent. The principle of minimum rights ensures that users only get the access they need for their tasks.

Privacy is implemented through data minimization and purpose limitation. The form does not ask for irrelevant data; data is not used for new purposes without justification; view hides sensitive attributes; and exports are restricted. García-Peñalvo (2021) warns that digital transformation can have a dark side if data is used without ethical governance. Privacy impact assessments need to be carried out on high-risk services.

Operational security includes vulnerability management, updates, log monitoring, device control, and incident response. Universities need to establish reporting channels, response teams, incident priorities, documentation obligations, and communication procedures. Logs are stored as security archives with appropriate retention and protection from changes. Regular audits check privileged accounts, access rights, backups, and vendor compliance.

Finance and Business Management Journal
Vol. 4, No. 1, 2026
https://ejournal.unma.ac.id/index.php/fbmj
e-ISSN : 3025-1095

Continuity of service requires recovery time goals and data loss tolerance. Backups should be encrypted, separate, and tested through restore simulations. Emergency manual processes are set up for critical services such as registration, value, payment, and document issuance. Recovery doesn't just turn the server on, it ensures data is consistent and users can continue the process from the correct point.

The sixth layer is human capabilities and digital culture. Universities require different competencies: process managers, data analysts, archivists, developers, security administrators, service officers, auditors and digital leaders. General training alone is not enough. Every role requires a path of learning, practice, evaluation, and a community of knowledge. Jackson (2019) emphasizes the importance of competency development in innovative change in higher education.

Change management needs to start from the user's problem and the benefits of the work. Employees are involved in process mapping, testing, and improvement. Pilot units are selected based on need, readiness and impact. Small failures are treated as learning, but security and records management standards are not negotiable. Castañeda and Selwyn (2018) caution that technology is changing practices, so discussions must include organizational ways of working and relationships.

Change communication must be consistent. Leaders explain goals, decisions, stages, responsibilities and impacts. Users get schedules, guides, help channels, and disruption information. Feedback is collected and follow-up actions are announced. When users see feedback resulting in change, trust increases. Conversely, consultation without response reinforces cynicism.

Digital administration performance indicators need to measure outcomes, not technological activity. Indicators may include time to completion, percentage of service completed without face-to-face contact, error rate, repeat data entry, integration success, satisfaction, accessibility, audit findings, incidents, recoveries, metadata completeness, retention compliance, and percentage of follow-up completed. Mohamed Hashim et al. (2022) place digital transformation within a strategy and value framework.

Analytics can be used to identify process bottlenecks, but must be ethically constrained. The dashboard shows wait times and volume, rather than being a tool for excessive monitoring of individuals. Data is anonymized if identification is not required. Indicator definitions are published internally so as not to give rise to different interpretations. Measurement should drive improvement, not manipulation of numbers.

The first stage of the roadmap is mapping and standardization for about six months. Activities include inventory of services, applications, data, archives, integrations, contracts and risks; determining process and data owners; preparation of data dictionaries; records classification; minimal metadata; and service priorities. The results of this stage are the current state architecture, gap list, core policies, and program portfolio.

The second stage is priority service integration over six to twelve months. The university selected several high-impact user journeys, for example registration, academic letters, leave, graduation, or personnel services. Processes are simplified, status is made transparent, authentication is unified, and data exchange is established. Each service must produce a final record as well as an audit trail. Implementation is carried out in stages with user testing.

The third phase is strengthening archiving, security, and analytics over the next twelve months. An electronic records repository was implemented, retention was implemented, legacy priority records were digitized, access controls were strengthened, backups were tested, and process dashboards were built. Metadata automation can be tested on limited archive classes. Gkrimpizi et al. (2023) indicate that resource, competency, cultural, and ethical barriers must be managed simultaneously.

The fourth stage is continuous optimization. The University conducts annual audits, user surveys, portfolio reviews, security testing, recovery exercises, and retention evaluations. Services that do not provide benefits are repaired or discontinued. The architecture is updated according to academic and

Finance and Business Management Journal
Vol. 4, No. 1, 2026
https://ejournal.unma.ac.id/index.php/fbmj
e-ISSN : 3025-1095

regulatory requirements. Transformation is treated as an organization's ability to change, not a project with a single completion date.

This model provides a special position for SIMAK NG and SATU UNMA as part of the service experience, but does not assume their technical conditions. If the portal has integrated identity and processes, programs can focus on hardening data, archives, security, and evaluation. If integration is still limited to links, the priority is data exchange and process simplification. Decisions should be based on audit, not perception.

Table 2. Implementation Roadmap

Stage	Focus	Early indicators
1	Mapping and standardization	Complete inventory; designated owners
2	Priority service integration	Service steps and times decrease
3	Records, security, and analytics	Operational metadata and retention; tested recovery
4	Continuous optimization	Routine audits, surveys, and improvements

Source: Author's synthesis, 2026.

From a university governance perspective, digital administration increases accountability through decision trails and data consistency. Quality assurance obtains evidence that is easy to find; leaders obtain timely information; users get transparency; and auditors can trace transactions. However, benefits only emerge if the data and archives are trustworthy. A fast but inauthentic system actually increases the risk.

From an efficiency perspective, integration reduces typing, checking, and repetitive uploads. Efficiency does not mean reducing human interaction across all services. Complex cases, objections, and accessibility needs still require support. Digital-first should not be digital-only. Alternative channels and human escalation keep services inclusive.

From an institutional perspective, electronic records management preserves organizational memory. Changes in leadership, employees and systems do not eliminate the basis for decisions. Collaboration archives, curricula, accreditation, policies, research and institutional history are learning sources. This management supports the continuity and identity of Universitas Majalengka.

The main limitation of the model is the absence of internal data. The article does not know network quality, employee competency, IT management structure, budget, vendor contracts, incidents, metadata quality, retention, or satisfaction levels. Therefore, the sequence and duration of the roadmap are indicative. Validation needs to involve units and users and pay attention to applicable Indonesian regulations.

Further research can use mixed methods. Interviews map leadership and barriers; observations measure process steps; log analysis assesses timing as well as failures; surveys measure user experience; audits assess security and records management; and workshops validate the model. The results can produce a digital administration maturity index for Universitas Majalengka as well as evidence-based investment priorities.

To aid readiness audits, digital administration maturity can be assessed at five levels. The first level is ad hoc, when processes depend on individuals and documents are scattered. The second level is documented, when procedures and applications are available but not yet consistent. The third level is integrated, when identity, data, processes and archives are interconnected. The fourth level is measurable, when universities use indicators of service, data quality, security, and compliance for decision making. The fifth level is adaptive, when processes are continuously improved and new technologies are tested based on value and risk. Assessment is done per domain, rather than giving one average score that covers weaknesses. A university can be mature on academic services but still ad hoc on collaborative

Finance and Business Management Journal
Vol. 4, No. 1, 2026
https://ejournal.unma.ac.id/index.php/fbmj
e-ISSN : 3025-1095

archiving or email retention. The assessment results need to produce a list of actions, owners, costs, dependencies, and time targets.

Service catalogs are an important instrument for linking strategy with operations. Each service is recorded with a name that the user understands, purpose, recipient, requirements, process owner, service hours, completion targets, channels, data used, archives generated, as well as objection procedures. Catalogs differentiate services from applications; one application can support multiple services and one service can involve multiple applications. With a catalog, leaders can see duplication and gaps in responsibilities, while users know the standards they can expect. The catalog also forms the basis of internal service level agreements and evaluations. If the target is not achieved, analysis is directed at the stage that causes queues, officer availability, data quality, or integration failures, rather than directly blaming the user or system.

Metadata needs to be treated as institutional infrastructure. In addition to title and date, higher education records metadata can include creator, unit, function, activity, case or service number, related parties, status, version, security classification, retention, format, checksum, and relationships with other archives. Metadata should be generated as much as possible from transactions so that employees are not burdened with manual entry. Values that use controlled lists reduce write variations. Important metadata changes are recorded in an audit trail. When a system is replaced, metadata is exported along with its contents and relationships. This approach preserves context and makes migration easier. Tsvuura and Ngulube (2021) emphasize integration as a condition for managing university archives, while Brown and Toze (2017) show the importance of information governance that goes beyond application boundaries.

Technology procurement must include archive and data requirements from the document requirements. Vendors need to explain data structures, integration interfaces, logs, export mechanisms, secure deletion, backup locations, recovery, migration support, and handling when the contract expires. Universities must maintain the right to obtain data and metadata in an open, usable format. Confidentiality clauses, incident notifications, subprocessors, service levels, and security testing need to be assessed along with price and functionality. Out-of-service costs are also calculated. This step prevents vendor lock-in and situations where archives can only be read through applications that are no longer supported. Verhoef et al. (2021) emphasize changes in resources and capabilities in transformation; the capacity to manage suppliers is part of this capability.

Digital administrative audits need to combine process audits, data, technology and archives. Process audits check the conformity of steps with policies and targets; data audits check completeness, uniqueness, consistency, and timeliness; technology audits examine configuration, access, vulnerabilities, changes, and remediation; records audits check authenticity, metadata, retention, destruction, and preservation. Findings are grouped based on impact and likelihood, then given a follow-up plan. Proof of completion is verified, not just declared complete. Veerankutty et al. (2018) demonstrate the value of technology governance for the audit function. In a university environment, integrated auditing prevents narrow judgments that a system is secure just because the server is active or that records are orderly just because the files are stored.

Digital inclusion needs to be clearly measured. Universities can monitor whether services can be completed with a mobile phone, how many users require assistance, whether guidance is understood, and whether users with special needs can access forms. Differences in connectivity, devices, languages, and skills must be considered. During the transition, the help desk can function as an assisted digital service: officers help users complete processes on the same system, rather than creating separate paper lines that create duplicate databases. Bond et al. (2018) and Henderson et al. (2017) remind that the value of technology depends on practice as well as perceptions of usefulness. Inclusive design increases adoption while reducing data-entry errors.

Finance and Business Management Journal
Vol. 4, No. 1, 2026
https://ejournal.unma.ac.id/index.php/fbmj
e-ISSN : 3025-1095

The organizational learning aspect determines the sustainability of the model. Every incident, complaint, audit, migration, and pilot project generates knowledge that needs to be recorded. Universities may organize post-implementation reviews to discuss what was planned, what happened, causes of differences, and changes to standards. The results are stored in a knowledge base that the relevant teams can access. Good practices from faculties or units do not stop as local innovations, but are assessed and replicated. Instead, failures are documented so they don't happen again. Mergel et al. (2019) place learning and process change in digital transformation. A culture that is able to discuss failure responsibly will be more adaptive than a culture that hides problems until they become major incidents.

Program success ultimately requires disciplined benefits management. Before a project begins, universities need to record basic conditions, targets, beneficiaries, and methods of measurement. Once the service is running, benefits are verified over the agreed period. Time savings must be demonstrated through process data, increased satisfaction through surveys, and improved records through metadata and retention audits. Unachieved benefits trigger a review of design, training, or initial assumptions. This approach prevents a project from being judged successful just because the application is launched. Vial (2019) emphasizes that transformation results emerge through structural changes and value creation. For Universitas Majalengka, this value must be seen in easier services, more reliable decisions, more controlled risks, and institutional evidence that remains trustworthy over time.

CONCLUSION

Digital administration management at Universitas Majalengka needs to be positioned as a governance program that integrates strategy, processes, data, archives, technology, security and human capabilities. The existence of SATU UNMA and SIMAK NG provides an important foundation for access to services, but the level of integration and maturity needs to be assessed through internal audits.

The resulting six-layer model consists of strategic direction and policy; process and service architecture; data and records management; technology and integration; security, privacy, and sustainability; and human capabilities and digital culture. Electronic records management must be attached to transactions so that final documents, metadata, retention, access rights, and audit trails are consistently established.

Implementation is recommended through four stages: mapping and standardization, integration of priority services, strengthening archiving and analytics, and continuous optimization. Success indicators should assess service time, data quality, user experience, security, recovery, metadata completeness, and retention compliance, not just the number of applications.

Universities are advised to establish cross-unit governance, assign process and data owners, develop records classifications and data dictionaries, and conduct risk assessments before expanding automation. Artificial intelligence can be used on a limited basis for metadata and search once archival quality, transparency, and human oversight are available.

Because the article is based on literature and public information, the model should not be considered the result of an evaluation of the Universitas Majalengka system. The next step is validation through process mapping, interviews, user surveys, security audits and archiving audits so that the roadmap can be adapted to the institution's real needs, resources and risks.

REFERENCES

Alenezi, M. (2021). Deep dive into digital transformation in higher education institutions. Education Sciences, 11(12), 770. https://doi.org/10.3390/educsci11120770

Benavides, L. M. C., Tamayo Arias, J. A., Arango Serna, M. D., Branch Bedoya, J. W., & Burgos, D. (2020). Digital transformation in higher education institutions: A systematic literature review. Sensors, 20(11), 3291. https://doi.org/10.3390/s20113291

Finance and Business Management Journal
Vol. 4, No. 1, 2026
https://ejournal.unma.ac.id/index.php/fbmj
e-ISSN : 3025-1095

Bond, M., Marín, V. I., Dolch, C., Bedenlier, S., & Zawacki-Richter, O. (2018). Digital transformation in German higher education: Student and teacher perceptions and usage of digital media. International Journal of Educational Technology in Higher Education, 15, 48. https://doi.org/10.1186/s41239-018-0130-1

Brown, D. C. G., & Toze, S. (2017). Information governance in digitized public administration. Canadian Public Administration, 60(4), 581–604. https://doi.org/10.1111/capa.12227

Castañeda, L., & Selwyn, N. (2018). More than tools? Making sense of the ongoing digitizations of higher education. International Journal of Educational Technology in Higher Education, 15, 22. https://doi.org/10.1186/s41239-018-0109-y

Colavizza, G., Blanke, T., Jeurgens, C., & Noordegraaf, J. (2022). Archives and AI: An overview of current debates and future perspectives. Journal on Computing and Cultural Heritage, 15(1), 1–15. https://doi.org/10.1145/3479010

Díaz-García, V., Montero-Navarro, A., Rodríguez-Sánchez, J. L., & Gallego-Losada, R. (2022). Digitalization and digital transformation in higher education: A bibliometric analysis. Frontiers in Psychology, 13, 1081595. https://doi.org/10.3389/fpsyg.2022.1081595

Díaz-García, V., Montero-Navarro, A., Rodríguez-Sánchez, J. L., & Gallego-Losada, R. (2023). Managing digital transformation: A case study in a higher education institution. Electronics, 12(11), 2522. https://doi.org/10.3390/electronics12112522

García-Peñalvo, F. J. (2021). Avoiding the dark side of digital transformation in teaching: An institutional reference framework for eLearning in higher education. Sustainability, 13(4), 2023. https://doi.org/10.3390/su13042023

Gkrimpizi, T., Peristeras, V., & Magnisalis, I. (2023). Classification of barriers to digital transformation in higher education institutions: Systematic literature review. Education Sciences, 13(7), 746. https://doi.org/10.3390/educsci13070746

Henderson, M., Selwyn, N., & Aston, R. (2017). What works and why? Student perceptions of useful digital technology in university teaching and learning. Studies in Higher Education, 42(8), 1567–1579. https://doi.org/10.1080/03075079.2015.1007946

Jackson, N. C. (2019). Managing for competency with innovation change in higher education: Examining the pitfalls and pivots of digital transformation. Business Horizons, 62(6), 761–772. https://doi.org/10.1016/j.bushor.2019.08.002

Kuzu, Ö. H. (2020). Digital transformation in higher education: A case study on strategic plans. Higher Education in Russia, 29(3), 9–23. https://doi.org/10.31992/0869-3617-2019-29-3-9-23

Mergel, I., Edelmann, N., & Haug, N. (2019). Defining digital transformation: Results from expert interviews. Government Information Quarterly, 36(4), 101385. https://doi.org/10.1016/j.giq.2019.06.002

Mohamed Hashim, M. A., Tlemsani, I., & Matthews, R. (2022). Higher education strategy in digital transformation. Education and Information Technologies, 27(3), 3171–3195. https://doi.org/10.1007/s10639-021-10739-1

Rolan, G., Humphries, G., Jeffrey, L., Samaras, E., Antsoupova, T., & Stuart, K. (2019). More human than human? Artificial intelligence in the archive. Archives and Manuscripts, 47(2), 179–203. https://doi.org/10.1080/01576895.2018.1502088

Finance and Business Management Journal
Vol. 4, No. 1, 2026
https://ejournal.unma.ac.id/index.php/fbmj
e-ISSN : 3025-1095

Tsvuura, G., & Ngulube, P. (2021). A framework for the digitisation of records and archives at selected state universities in Zimbabwe. South African Journal of Information Management, 23(1), a1312. https://doi.org/10.4102/sajim.v23i1.1312

Veerankutty, F., Ramayah, T., & Ali, N. A. (2018). Information technology governance on audit technology performance among Malaysian public sector auditors. Social Sciences, 7(8), 124. https://doi.org/10.3390/socsci7080124

Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. Journal of Business Research, 122, 889–901. https://doi.org/10.1016/j.jbusres.2019.09.022

Vial, G. (2019). Understanding digital transformation: A review and a research agenda. The Journal of Strategic Information Systems, 28(2), 118–144. https://doi.org/10.1016/j.jsis.2019.01.003

Universitas Majalengka. (n.d.). Selayang pandang Universitas Majalengka. https://unma.ac.id/

Universitas Majalengka. (n.d.). Panduan SIMAK NG UNMA. https://sptik.unma.ac.id/manuel.html