

The Evolution of University Putra Malaysia Archives: Insights from a Successful Setup Process

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ABSTRACT

This article presents the experience of establishing a comprehensive Archival Management System at Perpustakaan Sultan Abdul Samad, Universiti Putra Malaysia, to preserve academic, administrative, and historical records. Although UPM's archival function dates back to 1978, it faced long-standing challenges, including the absence of a centralized system, inconsistent metadata, inadequate infrastructure, and limited staff awareness. In 2020, UPM Archives launched a five-year strategic development project (2020–2025) to modernize and institutionalize archival management in line with national and international best practices. The study outlines four key implementation phases: strategic planning and policy development; infrastructure and human resource strengthening; acquisition and curation of archival collections; and post-implementation evaluation. It details efforts to assess institutional needs, benchmark with peer institutions, develop facilities and integrate digital technologies to ensure consistency and long-term accessibility. Key challenges addressed include digitization priorities, legal compliance, resource limitations, and user access. This case study demonstrates the pivotal role of university archives in preserving institutional memory, supporting academic research, and enhancing administrative efficiency. The findings offer practical guidance and a scalable framework for other higher education institutions seeking to implement or reform their archival systems.

Keywords: Archival System; Digitization; Historical Records; University Archives; University Records

1 INTRODUCTION

University archives serve as vital repositories for preserving institutional history and heritage. They play a central role in safeguarding academic knowledge and documentation through collecting and maintaining diverse materials, each item capturing significant events and contributions from the university's past. Beyond storage, archives actively support research, reference services, and scholarly publication. As Barut and Cabonero (2021) emphasized, the primary mission of university archives is to preserve institutional memory and cultural heritage, highlighting their value to researchers, administrators, and the broader community. Archives also function as a bridge between the university and its alumni, nurturing a sense of identity, continuity, and belonging across generations.

In Universiti Putra Malaysia (UPM), this role has long been recognized and is reflected in the establishment of its institutional archives. The UPM Archives began operating in July 1978 under the name Reprography and Archives Unit. In 1982, responsibility for the unit was transferred to the Support Services Division and relocated to an annex of the main university library. A significant development occurred in 1985, when the archives began receiving essential materials such as building plans, maps, and institutional records from major departments, including the Bursar's Office, Registrar's Office, Admissions Division, and the University Farm Division. These foundational collections laid the groundwork for the preservation of UPM's developmental history. Currently, the UPM Archives are managed by the Media, Archives, and Conservation Division under the administration of the Sultan Abdul Samad Library (PSAS), which is entrusted with preserving heritage materials of historical and academic significance for both internal and external users.

Despite being in existence since the late 1970s, the archival function at UPM has historically faced numerous limitations. Among the most pressing issues has been the absence of a centralized archival management system, resulting in metadata inconsistencies and ineffective classification methods. Inadequate digital infrastructure further compounds the problem, making it difficult for users and staff to access or retrieve records efficiently. The lack of a clear and consistent records retention policy has also led to compliance issues with regulatory and legal frameworks. Additionally, limited awareness and advocacy among university staff regarding the importance of systematic archival management have contributed to fragmented practices across departments.

Recognizing these challenges, UPM Archives launched a five-year strategic development project for records and archives management beginning in 2020 and running through 2025. The project was initiated with strong institutional commitment, including endorsement from top management, allocation of dedicated funding, implementation of staff training, and benchmarking visits to other institutions. These efforts were designed to restructure and modernize the university's archival framework in alignment with best practices and national governance standards. The project underscores the university's goal to establish a more sustainable, systematic, and digitally integrated archival management system.

Against this backdrop, the purpose of this study is to document and analyze the establishment of the Archival Management System at UPM, focusing on the journey from initial planning to full implementation. Specifically, the study aims to examine the strategic decisions, institutional frameworks, and operational efforts that enabled the success of this initiative. It outlines the core phases involved, including needs assessment, policy development, system design, infrastructure planning, staff capacity building, and stakeholder engagement. It also reflects on the key challenges

encountered and the solutions applied, offering valuable insights and practical guidance for other higher education institutions aiming to undertake similar archival transformations.

2 LITERATURE REVIEW

Developing a good archival system in universities starts with having a clear strategy and proper implementation. Frusciano (1983) explained that early efforts to use computers in archives showed great promise, as they could help with storage, faster retrieval, and cost-saving. However, many problems appeared because archival records are not standardized and follow traditional principles like *provenance*, which are hard to apply in digital systems. Many archivists also lacked knowledge of computer technology, showing that planning, training, and understanding archival goals are important before implementing any system. Kim and Lee (2009) found that many university archives in Korea lacked basic policies and processes. Although some administrative functions were working, research and user services were weak. Asogwa (2013) also showed that in Nigeria, archives were not well managed due to poor legal support, unclear responsibilities, and untrained staff. These studies all show that strategic planning, policies, and leadership are essential in starting a successful archives program.

The second important area in building an archival system is having the right infrastructure and capable people. Asogwa (2013) pointed out that while some universities had computers and scanners, they did not have proper electronic systems or trained staff. Similarly, Kim and Lee (2009) observed that many archives had only one staff member, and few were professionally trained. In the Philippines, Las Johansen (2017) showed how one university improved their records system by developing EDAMS, a digital archive system. With support from the institution and careful planning using the Sashimi model, they improved document storage, access, and tracking. This example shows how good infrastructure, supported by trained staff and clear planning, can help universities move from manual to digital recordkeeping.

Once the foundation is in place, universities must focus on collecting, organizing, and preserving important archival materials. Ramalho and Ferreira (2004) showed how Portuguese archives used digital tools and international standards like EAD/XML to organize and provide better access to their collections. Wakimoto and Bruce (2015) added that archivists do more than store documents—they also connect people with history and identity through the archives. They stressed that archives should be accessible, well-organized, and serve both administrative and emotional needs. However, Barut and Cabonero (2020) found that although librarians had strong knowledge about archival work, actual practices such as staffing, records handling, and storage were often weak due to a lack of institutional support and clear procedures. This highlights the need to turn archival plans into active collection and curation efforts.

After implementing a system, it is important to evaluate and improve it. Spence et al. (2019) described how the University of Glasgow reviewed its digital preservation practices and used tools like Archivematica and Preservica to protect long-term access to digital records. Their success was not only due to the software but also because of strong collaboration, early planning, and staff engagement. Semple (2003) emphasized the need for archives to use open formats like XML, follow international standards like OAIS, and document every step through metadata. This helps ensure digital records are preserved, authentic, and accessible over time. Regular evaluation, user feedback, and technical updates are important to keep archival systems reliable and effective.

In conclusion, the literature shows that building a good university archival system requires careful planning, strong infrastructure, skilled staff, active management of collections, and continuous evaluation. These steps must work together to ensure that archives support institutional goals and remain useful for the future.

3 METHODOLOGY

This study employs a qualitative methodology, drawing on the author's personal professional experience and direct involvement in the development and implementation of the Archival Management System at UPM Archives. By reflecting critically on this personal involvement, the study provides an insider's perspective on the strategic decisions, operational challenges, and key success factors that shaped the evolution of the archives. Two librarians from the Media, Archive, and Preservation Division, PSAS, were directly involved in the archival project. They have between 12 to 17 years of working experience, and their responsibilities primarily include acting as archivists for UPM.

Their main job responsibilities include;

- Planning and managing UPM's records, files, and documents to ensure effective records management.
- Organizing workshops and continuous training sessions to raise awareness among stakeholders.
- Managing the archive's historically valuable collections, including photographs, artifacts, and architectural plans, to ensure their preservation.
- Overseeing the development of digital content related to historical research, making this information more accessible to the public.
- Planning and developing physical and virtual exhibitions.
- Handling the conservation of UPM Library's Special Collections.
- Managing reference requests, consultations, and research services for users seeking access to UPM's archival materials.

The librarians also report to and are supervised by the Head of the Division, who ensures that tasks are completed effectively and efficiently. In addition to personal reflection, the study employs semi-structured interviews to gather professional insights into the planning and implementation process of the archival system, as well as to identify the actual challenges faced and how they were addressed. The interviews were carried out with representatives from the UPM Library Management Team and an Information Technology Officer. Each interview session lasted approximately 30 minutes.

4 FINDINGS

This section outlines the key findings related to the chronological development of the Records and Archives Management System at UPM. It highlights the four major phases that shaped the implementation process, beginning with the initial planning stage in 2020 and culminating in the post-implementation evaluation. Each phase involved strategic decisions, policy development, professional practices, and operational activities that collectively contributed to the evolution of the system. The final phase, Post-Implementation Evaluation, focuses on assessing the effectiveness of the system, its institutional impact, and areas for improvement to ensure its long-term sustainability and alignment with good governance practices.

4.1 Phase 1: Establishing the Strategy and Implementation of Records and Archives Management

Developing a robust records and archives management system is vital for supporting effective governance within higher education institutions. UPM Archives, committed to preserving its intellectual heritage and aligning with public administrative policies, launched a strategic five-year development project for records and archives management beginning in 2020 and running through 2025. This phase marked the initial planning and strategic foundation for the entire project.

4.1.1 Strategic Commitment from Top Management

The process began with a strong commitment from PSAS's top management. The approval of a comprehensive five-year strategic plan provided the backbone for the initiative. This support included allocated funding, endorsement of policy development, training opportunities, and benchmarking visits, all of which demonstrated UPM Archives' confidence in establishing a modern, systematic, and sustainable records and archives management system.

In addition, the top management of the university has approved the Universiti Putra Malaysia (UPM) Records and Archives Management Policy 2023, along with the related guidelines. This approval was granted during the 176th University Board of Directors Meeting held on 14 March 2024, following prior endorsement by the University Management Committee (JPU) on 7 June 2023. This policy serves as the main authority for UPM Archives in carrying out its functions and responsibilities as the official archive of the university.

4.1.2 Formulating Policies and Procedures

In parallel with strategic commitment, UPM Archives focused on formulating clear policies and operational guidelines. Key documents produced during this period include:

- UPM Records and Archives Management Policy 2024
- Records Management and Archives Administration Guideline
- Archival Materials Management Guide
- Archives Services Guide

These documents serve as primary references for departments across the university to ensure standardized, compliant, and efficient handling of official records and archival materials. They were developed with attention to the Public Sector Records Management Guide and institutional needs.

4.1.3 Benchmarking and Adoption of Best Practices

To inform policy formulation and operational models, UPM Archives undertook benchmarking visits and engaged in knowledge exchange with reputable institutions, including:

- National Archives of Malaysia
- University Archives Division, Tun Abdul Razak Library, Universiti Teknologi MARA (UiTM)
- Universiti Malaysia Kelantan (UMK) Archives
- National Museum of Malaysia
- Islamic Arts Museum Malaysia
- Sultan Alam Shah Museum
- New Straits Times Press Library

- Department of Information Malaysia, Ministry of Communications

These visits enabled UPM Archives to observe and adopt best practices in archival governance, infrastructure, conservation, and public accessibility. The benchmarking process helped refine the university's systems, making them more resilient, responsive, and aligned with international standards.

4.2 Phase 2: Structuring Infrastructure and Strengthening Human Resources

Following the strong strategic and policy groundwork laid during Phase 1, Phase 2 focused on the establishment of physical and digital infrastructure, alongside the enhancement of human resource capacity necessary for the successful implementation of the archival system. This phase emphasized the importance of suitable archival facilities, the integration of supporting technologies, and the assignment and upskilling of competent staff.

4.2.1 Development of Archival Facilities

To identify an appropriate location for the university's archival centre, UPM Archives collaborated with the Records Management Consultancy Services Division of the National Archives of Malaysia. A formal site evaluation conducted on 15 June 2022 confirmed the suitability of an existing building, which was officially designated as the University Records Centre. This facility, known informally as the archive warehouse, measures 7,922.24 square feet. Though retaining its original structure, the building underwent rebranding and refurbishment to serve its new function effectively.

In support of the long-term preservation of archival materials, UPM Archives equipped the facility with key environmental and safety features. These included air-conditioning units, humidity control systems, silica gel for microclimate regulation, smoke detectors, automatic water sprinklers, fire alarms, and fire extinguishers. In 2023, a pest control program was introduced, involving scheduled fumigation and insecticide treatments. The original metal shelving and cabinets were retained due to their durability and continued functionality. Additionally, a designated office area outside the main archive was created for staff, and three internal rooms were assigned specifically for photographs, artifacts, and research collections.

4.2.2 Integration of Technology

UPM Archives has implemented several digital initiatives to enhance its archival management and ensure the long-term preservation of institutional memory. One of the main platforms developed is the Putra Archives System, a Digital Archival Management System built using the open-source software *ArchivesSpace*. Introduced in 2022, the system allows for the structured storage, organisation, and retrieval of archival records, manuscripts, and digital materials. It supports various archival functions and is designed to improve user access to historical collections for research and reference. The system follows international standards such as the *General International Standard Archival Description (ISAD(G))*, ensuring metadata consistency and ease of access. In addition to documenting the contents and locations of archival items, it enables users to search and retrieve materials efficiently, reflecting UPM's commitment to digital preservation and open access to its historical resources.

In support of this system, UPM Archives also launched the UPM Archives Portal to improve public access and internal communication. This portal serves as a central access point to the university's archival resources for both internal users and the wider public. It provides important information such as:

- University policies and guidelines related to records and archives
- Roles and responsibilities of the university archives
- Announcements and news related to archival activities
- Online exhibitions of selected archival items
- Historical events and milestones of UPM

This initiative promotes transparency and encourages greater engagement with archival materials among researchers, students, and the general public.

Another key initiative is the Memory@Serdang photo management system, led by the UPM Archives. This system focuses on preserving UPM's photographic history, from its early days as the School of Agriculture Malaya to the present. Photos are digitised to maintain their historical value and to allow long-term access. The platform supports university teaching, learning, and research by offering a visual record of UPM's development. It also encourages contributions from UPM staff, alumni, photographers, and the public, helping to enrich the university's archival collection. Memory@Serdang is built on open-source software and uses the *Dublin Core* metadata standard for structured description and cross-platform access.

To further support file management, UPM Archives developed ArchiveCloud, a private cloud-based platform that allows users to store, manage, and share files within a secure university environment. This platform ensures data privacy, supports inter-departmental collaboration, and aligns with UPM's records management and data governance policies.

4.2.3 Human Resource Development

Strengthening the human element of archives management was another core focus of this phase. Staff placements were made based on professional competencies. The Division Head, possessing a background in Information Technology and Systems, was strategically appointed to lead digitalisation efforts. A senior librarian with a degree in Library and Information Science and a minor in Records Management was entrusted with leading the operational development of the archive.

To ensure professional readiness, staff participated in a series of capacity-building workshops and courses. These included:

- National Archives Records Management Training at the National Archives of Malaysia (2021)
- Oral History Workshop (2021)
- Library Collection Conservation Training at the National Library of Malaysia (2023)
- Library Records and File Management Course by National Archives of Malaysia (2025)
- Oral History Workshop: Documenting Experiences and Stories (2025)

This training helped broaden staff expertise in heritage documentation, conservation, and records management.

A strategic human resource plan was developed to align staff responsibilities with the phased implementation of the project. Detailed job descriptions were created to ensure role clarity, operational efficiency, and ongoing professional development.

4.3 Phase 3: Acquisition and Curation of Archival Collections

With the physical and digital infrastructure established and the implementation team strengthened during Phase 2, Phase 3 marked a critical shift towards the acquisition and curation of archival

collections. This phase focused on systematically identifying, assessing, preserving, and digitizing materials of historical, administrative, and academic value to ensure the long-term protection of UPM's institutional memory.

4.3.1 Identification and Appraisal of Archival Materials

The process of acquisition began with the application of UPM's Archival Appraisal Guidelines, which prioritize materials based on criteria such as historical significance, uniqueness, and relevance to the university's core functions and development. Each record was evaluated for its enduring value to research, institutional memory, and administrative reference.

To uncover undocumented or hidden collections, the team conducted a series of oral history interviews involving key historical actors, direct eyewitnesses, and secondary witnesses—individuals who had heard or learned about events through informal or generational transmission. These interviews targeted individuals closely associated with significant moments in the university's development, including founding staff, retired administrators, long-serving faculty, and others with deep institutional memory. The aim was to reconstruct narratives, fill documentary gaps, and retrieve overlooked materials such as personal collections, photographs, correspondence, and unpublished reports. By capturing lived experiences and personal testimonies across different periods, this approach enriched the archival collection with contextual insights that are often absent from official records, thereby enhancing the historical depth and authenticity of the university's institutional memory.

The appraisal process was further strengthened through reference to the National Archives of Malaysia Records Disposal Schedule and internal policies, including procedures outlined under ISO 9001 (QMS). Common types of records selected for preservation included:

- Meeting minutes from UPM Responsibility Centres (PTJs)
- Official correspondence
- Key academic and administrative documents
- Personal files of prominent UPM figures

4.3.2 Field Surveys and Collection Discovery

To proactively identify archival materials across the university, field surveys were conducted in various departments and academic units. These involved interviews with Departmental Records Officers, as well as physical inspections of storage areas, filing cabinets, and older record holdings.

These field visits served dual purposes: uncovering potentially valuable archival collections and raising institutional awareness about the importance of preserving UPM's heritage. Staff began to see the archive as a living, essential part of university operations rather than just a storage unit for old files.

4.3.3 Classification and Metadata Management

UPM Archives adopted ArchivesSpace for archival management, ensuring alignment with international descriptive standards such as:

- DACS (Describing Archives: A Content Standard)
- ISAD(G) (General International Standard Archival Description)
- EAD (Encoded Archival Description)

These standards supported consistency, clarity, and enhanced retrieval of information. Metadata was recorded systematically, enabling easier access and searchability for both internal users and external researchers.

4.3.4 Digitization Process

Digitization efforts were prioritized based on criteria such as:

- Historical importance
- Relevance to current research
- Frequency of use
- Physical fragility of materials

Items deemed fragile or of high public interest were given priority for online access and digital exhibitions. Before scanning, detailed preparation was undertaken. This included:

- Estimating total document/page/image volume
- Cleaning and flattening materials
- Labelling items for tracking and organization

These steps ensured high-quality digital outputs and minimized potential damage during the scanning process. The digitisation process uses various technologies, including flatbed, sheet-fed, and handheld scanners. Each staff member is provided with a personal workstation to handle digitisation tasks. To protect and preserve digital materials, UPM Archives uses secure cloud storage, ensuring reliable access and long-term archival preservation.

4.4 Phase 4: Post-Implementation Evaluation of the UPM Archives System

The final phase evaluates the effectiveness, usage, and institutional impact of the UPM Archive system within the first five years of implementation. Key performance indicators—including acquisition trends, registration rates, digitization output, user engagement, and advisory services—demonstrate the system’s growing integration and strategic relevance.

The data in **Table 1** shows a clear and steady increase in the number of archival materials acquired from 2022 to 2024. In 2022, 333 items were received. This more than doubled to 816 items in 2023, and rose further to 1,446 items in 2024—an increase of about 77% from the previous year. This upward trend reflects greater awareness and compliance by university departments, better coordination between the archives and university units, and the successful implementation of a more structured records management system starting in 2023.

Table 1: Archival Acquisition Statistics

Year	Number of items	Notes
2024	1446	This indicates increased awareness and compliance among departments.
2023	816	Reflects early impacts of strategic outreach and policy enforcement.
2022	333	Represents the baseline before full implementation of archival initiatives.

The data in **Table 2** from 2022 to 2024, the registration of archival materials into the Putra Archives System, showed overall growth. The number increased from 419 items in 2022 to 760 in 2023, indicating improved processes and cooperation. In 2024, a slight decline to 616 items was observed. This decrease is attributed to new responsibilities undertaken by archival staff, including exhibitions and outreach activities, which temporarily affected registration output.

Table 2: Register of Archival Materials in the Putra Archives System

Year	Number of items	Notes
2024	616	Slight decrease compared to 2023. Registration output was impacted by additional responsibilities such as exhibitions and outreach events.
2023	760	Peak year reflecting improved coordination and increased efficiency in archival registration.
2022	419	The initial baseline year marked early efforts to formalize registration into the Putra Archives System.

The data in **Table 3** indicates a steady increase in digitization activities over the three years. In 2022, a total of 4,267 items were digitized. This figure rose to 7,338 items in 2023, reflecting a substantial improvement in digitization efforts. In 2024, the upward trend continued with 7,613 items, marking the highest volume of digitized materials to date. This consistent growth highlights the archive's ongoing commitment to enhancing digital access, preservation, and service delivery in line with evolving institutional and user needs.

Table 3: Digitization Statistics

Year	Number of items	Notes
2024	7613	Highest digitization output to date; reflects institutional commitment to digital preservation and service expansion.
2023	7338	Significant growth from the previous year marks a period of scaling up digital conversion efforts.
2022	4267	Baseline year indicating the start of systematic digitization initiatives.

The usage data for Memory@Serdang demonstrates a clear trend of growth and stabilization over the period from 2022 to 2024. In 2022, the platform recorded 3,622 link clicks, reflecting initial engagement during its early introduction. Usage surged in 2023 to 17,740 clicks, marking the peak period driven by institutional promotion and increased user awareness. In 2024, usage slightly declined to 13,354 clicks, but overall interest remained strong. This suggests that while the initial novelty has tapered, the platform continues to serve as a valuable and actively used digital heritage resource within the university community.

Table 4: Usage Trend of Memory@Serdang

Year	Number of usage (click links)	Notes
2024	13,354	Slight decline; stable interest continues.
2023	17,740	Peak usage following launch and institutional push.
2022	3622	Early-year data only; the platform was newly introduced.

Table 4 from 2022 to 2024, the number of advisory service requests increased from 22 to 26, reflecting growing user engagement with archival reference and consultation services. The average response time rose from 0.55 days in 2022 to 2.42 days in 2023, before improving slightly to 1.96 days in 2024. The longer response times in 2023 and 2024 were primarily due to the complex nature of inquiries, particularly those related to research on the historical development of faculties, which required additional time to locate and compile relevant archival information. Despite this, the archive maintained a reasonable turnaround, balancing quality responses with user needs.

Table 5: Advisory Services Statistics

Year	Number of items	Average day to respond	Notes
2024	26	1.96 days	Improved response time compared to 2023, despite an increase in inquiries related to faculty history.
2023	22	2.42 days	Longest response time recorded, due to detailed historical research queries requiring data from multiple sources.
2022	22	0.55 days	Quickest turnaround; reflects simpler advisory scope and fewer in-depth historical inquiries.

4.5 Framework Overview: Phases in the Development of the UPM Archives

The conceptual framework reflects a distilled summary of the archival system's establishment process at UPM Archives. The framework is organized into four interrelated phases:

1. Strategic Planning and Policy Development,
2. Infrastructure and Human Resource Strengthening, and
3. Acquisition and Curation of Archival Collections
4. Post-Implementation Evaluation

Each phase represents a major dimension of the system's evolution and is closely aligned with the components embedded in the research question, namely: planning, implementation, challenges, and outcomes. The framework thus serves both as a guide for data analysis and as a tool for explaining how strategic decisions, institutional readiness, and operational practices contributed to the success of UPM's archives initiative. By aligning the framework with the research question, the study ensures that the findings are systematically organized and reflect the chronological and thematic aspects of the archival system's development. **Table 6** below provides a summary of the four-phase framework, outlining the key focus areas, main activities, and the expected outputs or outcomes for each phase.

This summary helps illustrate how each stage contributed to the gradual and structured development of the archival system.

Table 6: Four-Phase Framework for Establishing UPM Archives (2020-2025)

Phase	Key Focus Areas	Main Activities	Outputs/Outcomes
Phase 1: Establishing the Strategy and Implementation of Records and Archives Management	- Top management support - Policy and guideline formulation - Benchmarking	- Strategic Plan (2020–2025) approved - UPM Records & Archives Management Policy 2023 - Benchmarking with 8 institutions	- Institutional policy framework - Strategic commitment - Policy documents (4 guides produced)
Phase 2: Structuring Infrastructure and Strengthening Human Resources	- Facility development - Technology integration - Human capital development	- Renovation of Archive Warehouse (7,922.24 sq ft) - Implementation of ArchivesSpace & Memory@Serdang - Staff training (4 major programs)	- Archive Centre operational - Digital systems launched - Skilled, assigned archival team
Phase 3: Acquisition and Curation of Archival Collections	- Material appraisal - Field survey and oral history - Classification & digitization	- Archival Appraisal Guidelines - Surveys in PTJs - Digitization based on prioritization	- Collection growth (increased acquisition) - Digital metadata (DACS, ISAD(G), EAD) - Accessible collections
Phase 4: Post-Implementation Evaluation	- Performance tracking - Usage and feedback - Service evaluation	- Acquisition: 333 → 1,446 items - Digitization: 4,267 → 7,613 items - Advisory services: ↑ inquiries, stable turnaround	- High growth in records & user engagement - Measurable impact - Platform sustainability

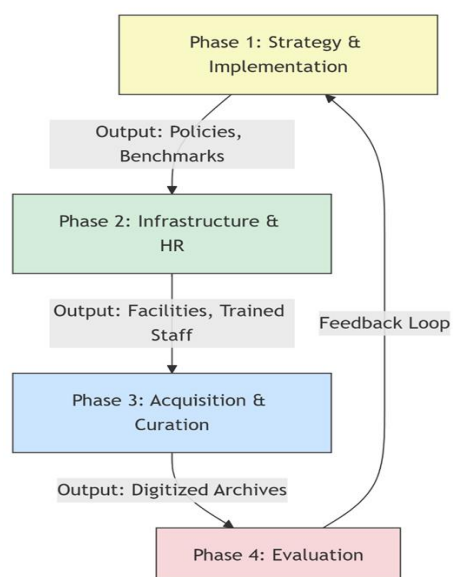


Figure 1: Four-Phase Development Framework of UPM Archives (2020-2025)

4.6 Challenges and Solutions

During the development of the UPM records and archives management system, several challenges arose—both technical and organizational. Financial constraints were a major obstacle, particularly in acquiring acid-free archival materials such as special boxes, folders, and files required for long-term preservation. These items are expensive and needed on an ongoing basis. To address this issue, UPM Archives identified local suppliers offering more competitive pricing and requested funds in stages aligned with project phases.

Digital preservation also posed significant challenges. Digitization demands extensive storage space, stable systems, high-resolution scanners, and powerful computers. Sustainable backup and digital file management systems are equally essential. In response, UPM Archives adopted open-source software and leveraged cloud storage, allowing for flexible, modular scalability to meet growing needs.

The drafting of UPM's Records and Archives Management Policy was a complex process that involved a thorough analysis of institutional needs, alignment with government circulars, and extensive stakeholder consultation. Multiple review and approval stages were required. To address these challenges, UPM Archives established a dedicated team comprising experienced policy and administrative officers and conducted regular engagement sessions with university leadership and departmental units to gather input and ensure consensus.

Culturally, changing perceptions about records management was challenging. Some staff viewed it as an administrative burden rather than a strategic information asset. UPM Archives addressed this through ongoing communication efforts, showcasing early wins, and offering training and mentorship to records officers in UPM Responsibility Centres (PTJs).

5 CONCLUSION

UPM's records and archives system exemplifies a strong commitment to heritage preservation, administrative effectiveness, and academic support. Through its four-phase journey—Phase 1: Establishing the Strategy and Implementation of Records and Archives Management, Phase 2: Structuring Infrastructure and Strengthening Human Resources, Phase 3: Acquisition and Curation of Archival Collections at Universiti Putra Malaysia, and Phase 4: Assessment of Archival Usage and Institutional Impact—the university has demonstrated that effective archival systems require strategic planning, leadership support, and active engagement with all stakeholders. Challenges encountered throughout the process prompted innovative, integrated solutions and adaptability to changing conditions. By embracing technology, continuous training, and robust policy frameworks, UPM Archives has laid the groundwork for a sustainable archival system that not only for today but also educates future generations about the university's history and identity. This success story offers a valuable model for other higher education institutions seeking to enhance their records management and archival heritage.

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