AccredX: Record Management and Archiving System For NEUST Peñaranda Off-Campus

A CAPSTONE AND RESEARCH PROJECT

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Review of Related Literature

Record management and archiving are essential for maintaining organizational efficiency and compliance with regulations. Records management involves the systematic control of records throughout their life-cycle. Effective record management ensures compliance, security, and accessibility (Dearstyne, 2020). The development of records management and archiving systems has significantly evolved with the advancement of digital technology. A well-organized records management system is essential for businesses and institutions to store, retrieve, and secure essential documents efficiently. According to Bailey (2021), modern electronic records management systems (ERMS) enable organizations to automate the classification, storage, and retrieval of records, reducing manual effort and improving document security.

Records management and archiving systems ensure compliance with legal and regulatory requirements. As stated by Smith & Johnson (2020), organizations that implement electronic records management can improve regulatory compliance by automatically tracking document retention schedules and ensuring that sensitive records are disposed of properly. Additionally, automated archiving reduces the risk of

document misplacement and enhances information retrieval speed. Digital archives ensure long-term preservation and retrieval of critical documents (Thomassen, 2021).

Digital records management also enhances data security and accessibility. According to Patterson (2022), cloud-based archiving solutions provide organizations with encrypted storage and role-based access, ensuring that only authorized personnel can access sensitive records. Furthermore, implementing a structured digital archiving system minimizes data loss and ensures disaster recovery (Thompson & Lee, 2020). Studies indicate that organizations using cloud storage experience improved collaboration and reduce infrastructure costs (Harris, 2021). In the educational sector, a study by Mitchell & Carter (2020) highlighted that digital archiving systems help academic institutions manage student records efficiently, ensuring long-term storage and easy retrieval. Additionally, digital solutions prevent unauthorized alterations, ensuring data integrity. Encryption, role-based access control (RBAC), and audit trails are crucial for protecting sensitive records (Anderson, 2022).

The adoption of standardized frameworks and best practices in records management further improves

efficiency and compliance. According to Wilson (2021), implementing international standards such as ISO 15489 for records management ensures systematic control over document creation, maintenance, and disposal. Proper indexing and metadata tagging also enhance the retrieval process, allowing organizations to locate records quickly and accurately (Miller & Adams, 2022). Additionally, digitization of paper records reduces physical storage requirements and mitigates risks associated with document deterioration or loss (Clark, 2020). Effective training programs for staff on records management policies and procedures are essential in maintaining consistency and preventing mishandling of sensitive information (Henderson, 2021). Moreover, backup strategies, such as redundant storage and offsite archiving, play a crucial role in disaster recovery and business continuity (Turner & Scott, 2022).

The integration of electronic document management systems (EDMS) has further enhanced the efficiency of records management. According to Ramirez (2021), EDMS allows organizations to store, categorize, and retrieve records with greater accuracy and speed. The use of version control mechanisms ensures that the latest document revisions are accessible while preserving historical records for reference (Collins

& Hayes, 2020). Additionally, implementing automated retention schedules helps organizations comply with legal and regulatory requirements by systematically disposing of outdated records (Stewart, 2022). Regular system maintenance and data migration strategies are also essential to ensure long-term accessibility and prevent data corruption or loss (Foster, 2021).

Statement of the Problem

NEUST Peñaranda Off-Campus faces challenges in managing and archiving important documents. The current manual or semi-digital record-keeping process leads to inefficiencies in file organization, retrieval delays, security risks, and tracking document history. These challenges reduce the overall efficiency of administrative tasks and accreditation processes, resulting in misplaced files, inconsistent record updates, and time-consuming searches.

To address these issues, the goal of this study is to develop a Record Management and Archiving System that will improve document organization, accessibility, and security during storage and retrieval. The system will streamline administrative processes by providing structured digital record-keeping, search and filtering capabilities, and file tracking mechanisms.

Specifically, the study seeks to answer the following questions:

1. How do staff members at NEUST Peñaranda Off-Campus currently manage and archive records, and what challenges do they face?

2. What are the common inefficiencies in the existing record-keeping system in terms of organization, accessibility, and security?
3. How can a Record Management and Archiving System improve file retrieval, security, and overall efficiency?
4. What are the essential features and functionalities needed for an effective Record Management and Archiving System?
5. How can the system be developed following the Software Development Life Cycle (SDLC) stages:
    - Requirements Analysis
    - Design
    - Development
    - Testing
    - Deployment
    - Maintenance
6. How may the Record Management and Archiving System be evaluated by IT experts using ISO/IEC 25010:2011 standards based on the following criteria:
    - Functional suitability
    - Performance efficiency
    - Security
    - Usability

- Maintainability
- Reliability

7. How may the system be evaluated by end users in terms of:
    - Ease of use
    - File organization and retrieval efficiency
    - Overall user satisfaction

By addressing these questions, the study aims to develop a structured and efficient record-keeping system that enhances document management, security, and accessibility at NEUST Peñaranda Off-Campus.

Research Locale

This study takes place at Nueva Ecija University of Science and Technology (NEUST) Peñaranda Off-Campus, with a particular emphasis on the accreditation process. The researchers are undergraduate students enrolled in the Bachelor of Science in Information Technology (BSIT) program, majoring in Web Systems Technology.

Located in Pob. 1, Peñaranda, Nueva Ecija, Central Luzon, Philippines, NEUST Peñaranda Off-Campus is an educational institution offering various degree programs, including BSIT, Bachelor of Science in Business Administration (BSBA), and Bachelor of Science in Secondary Education (BSEd).

This study focuses on enhancing record management and archiving within the accreditation process. The proposed system aims to streamline the storage, retrieval, and tracking of essential accreditation documents, ensuring improved organization and accessibility.

NEUST Peñaranda Off-Campus plays a vital role in the academic and administrative functions of its faculty and students. Since accreditation is crucial in maintaining educational standards, implementing a Record Management and Archiving System will assist in efficiently handling and safeguarding accreditation-

related files. This system is designed to support the university's ongoing efforts in quality assurance and institutional development.

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