Recoletos de Bacolod Graduate School Docuware: E-Document Management System

Mariano D. Antenor, Jr. and Jake R. Pomperada²
^{1,2}University of Negros Occidental-Recoletos, Bacolod City, Philippines

Introduction: The integration of Electronic Document Management Systems (EDMS) in educational institutions is increasingly recognized as vital for enhancing administrative efficiency, data security, and information accessibility. The Recoletos de Bacolod Graduate School (RBGS) faced inefficiencies with its traditional manual document management system, including data loss, delayed access, and administrative burden. This project aimed to design and implement a dedicated EDMS to digitize, centralize, and secure academic and administrative documents. The system is tailored for RBGS's needs, supporting functions like file encryption, keyword search, analytics, and regulatory compliance—critical for accreditation and institutional continuity.

Methodology: The system was developed using the Rapid Application Development (RAD) methodology, allowing for iterative feedback, prototyping, and refinement. Technologies used included Laravel, MySQL, and XAMPP, with a focus on usability, offline/online access, and security. Performance evaluation employed the Pomel Scale across 30 respondents (faculty and students), assessing attributes like user-friendliness, compatibility, and reliability. System modules included document digitization, faculty management, archives, report generation, authentication, and analytics.

Results: The implementation of the RBGS EDMS significantly improved document management within the institution. Users reported *excellent* levels of satisfaction across all quality metrics. The system enabled fast, secure access to digitized academic documents, incorporated filename encryption, and provided robust search and backup features. Although version control was not yet implemented, the system ensured consistency through enforced final uploads. The results validated the system's effectiveness in achieving its primary goals of efficiency, security, and accessibility.

Conclusion: The RBGS EDMS marks a substantial leap in transforming academic document workflows from manual to digital, ensuring improved storage, faster retrieval, and stronger data protection. Designed with scalability in mind, it aligns with the institution's vision for modernization. User feedback confirms that the system fulfills its functional and non-functional requirements, making it a sustainable solution for document management in a graduate academic setting.

Practical Value: The system provides immediate benefits in operational efficiency, reduced paper usage, and enhanced compliance with accreditation requirements. It demonstrates how targeted digital tools can solve institution-specific challenges in educational administration. The inclusion of backup strategies and encryption ensures data continuity and security. Furthermore, the system supports seamless collaboration across departments due to its centralized structure and API readiness.

Direction for Future Research: Future efforts should explore the integration of document version control to manage revisions more efficiently. Longitudinal studies could evaluate how such systems impact institutional efficiency, accreditation success, and user engagement over time. Investigating the adoption of cloud-based or blockchain-secured storage, mobile integration, and AI-powered search algorithms could provide insights for enhancing system performance and scalability. Comparative studies between different academic institutions implementing similar systems may also yield best practices for broader application in higher education.

Keywords: electronic document management system (EDMS), document digitization, data security, educational institutions, system implementation, document archiving, data backup, filename encryption

CORRESPONDENCE: mar_antenor@yahoo.com ORCID: http://orcid.org/0000-0001-5548-2682¹