Clarefiles: A Web-Based System for Managing Academic Document Request at St. Clare College of Caloocan

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ABSTRACT

Academic institutions rely on the efficient delivery of official documents like Transcripts of Records (T.O.R.) and diplomas. At St. Clare College of Caloocan, the existing "fragmented manual system" utilizing Google Forms and email still necessitates in-person payments and physical document collection. This study addressed the delays caused by this approach, identifying "long lines for in-person payments" as the primary challenge (Weighted Mean = 4.43). To resolve these issues, the researchers developed ClareFiles, a centralized web-based platform designed to fully digitalize the document request lifecycle.

The research utilized a descriptive-developmental design following the Agile methodology. Data collection involved 100 student respondents and administrative staff who evaluated the current system and the new prototype through Likert-scale surveys. The system architecture was built to integrate online request submission, secure e-wallet payments, and automated email notifications for scanned copies, with an optional door-to-door delivery service for physical documents.

Post-implementation results demonstrated a substantial improvement in service delivery. The ClareFiles system received a "Highly Effective" rating with a grand weighted mean of 4.56. Students identified "Accessibility" as the most valued feature (WM = 4.63), while administrative staff gave the system a perfect mean score of 5.00, confirming that the integrated dashboard successfully optimized internal workflows. The study concludes that moving to a digital platform significantly enhances institutional efficiency.

Keywords: Web-Based System, Document Management, Digitalization, ClareFiles, St. Clare College of Caloocan

INTRODUCTION & LITERATURE REVIEW

Academic documents such as Transcript of Records (T.O.R.), diplomas, certificates of good moral character, and Form 137 are important requirements for academic, professional, and legal transactions. These documents serve as official proof of a student's educational achievements and are frequently requested for employment, scholarship applications, transfers, and graduation requirements. Because of their importance, educational institutions must provide efficient, accessible, and reliable systems for processing and releasing these documents.

At St. Clare College of Caloocan, the current document request process uses Google Forms and email to receive requests from students. Although the process is partly online, it is not fully digitalized because several procedures still require physical transactions. Students must pay fees in person or through separate payment channels before submitting proof of payment. Afterward, they must wait for manual confirmation and physical release schedules. Documents are commonly released during specific schedules, requiring students to travel to the institution personally. These fragmented procedures result in delays, inconvenience, poor communication, and difficulty in tracking requests.

The increasing demand for digital services in educational institutions has encouraged schools and universities to adopt web-based systems that improve administrative efficiency. Digital transformation allows institutions to

reduce paperwork, minimize manual errors, improve communication, and provide better accessibility for students and staff. Many institutions worldwide have already implemented centralized online systems for managing records, student information, and document requests.

Foreign literature supports the importance of digitalization in education and administration. El Gohary (2017) explained that e-government implementation improves transparency, service delivery, and efficiency in organizations. Arisoy (2022) discussed how digitalization enhances accessibility and institutional effectiveness in education. Triyana and Fianty (2023) emphasized that web-based document management systems optimize workflows and reduce administrative errors.

Several studies also highlighted the importance of usability, accessibility, and secure record management in educational systems. Oliha (2020) found that user-friendly academic portals improve processing speed and accessibility. Kanayokizito and Nwabueze (2019) proposed a web-based student records management system that centralized student information and enhanced security. Brdesee (2019) discussed how online verification systems improve transparency and reliability of student documents. Meanwhile, Simmons (2025) and Srinivas (2025) emphasized that online payment systems reduce the need for physical visits and improve transaction efficiency.

Local literature in the Philippines also demonstrates the growing use of digital systems for academic document management. Antonio and Roda (2025) developed RMSColCred, a request and monitoring system with SMS notifications that improved the efficiency of credential processing. Andrea et al. (2025) highlighted that centralized digital platforms reduce manual errors and streamline workflows in educational institutions. Cabile and Caroline (2025) emphasized the role of secure e-payment systems in improving document transactions.

Studies conducted in the Philippines further support the effectiveness of digital systems. Bacud and Siddayao (2024) created an online request system that reduced processing delays for school records. Castro, Quilon, and Arruejo (2022) developed DocTrack, which enabled real-time monitoring of requests and improved communication between staff and students. Fe et al. (2025) implemented an online document requisition system that allowed students to submit and monitor requests electronically.

Although many schools have started adopting digital systems, several processes still remain fragmented and partially manual. Existing systems often lack full integration of request submission, online payment, tracking, and delivery in a single platform. This gap highlights the need for a more centralized and fully digitalized solution.

To address these issues, the researchers developed ClareFiles, a web-based document request system that consolidates all major processes into one platform. The system allows students to submit requests online, pay fees digitally, receive scanned copies through email, and monitor the status of their requests in real time. The system also includes an administrative dashboard that enables staff to organize requests, manage workflows, and automate communication.

The study aimed to develop and evaluate ClareFiles as a solution to the problems experienced in the current fragmented process at St. Clare College of Caloocan. Specifically, the study sought to identify the challenges encountered by students and staff, develop a fully digitalized system, and evaluate the effectiveness of the system in terms of usability, accessibility, security, and efficiency.

The significance of the study extends to students, administrative staff, the institution, and future researchers. Students benefit from reduced waiting times, improved accessibility, and transparent request tracking. Administrative staff benefit from organized workflows and reduced manual workload. For the institution, the system supports digital transformation and improved service delivery. Future researchers may also use the study as a reference in developing similar educational systems.

Overall, the reviewed literature and studies demonstrate that web-based systems significantly improve document management processes in educational institutions. The findings support the development of ClareFiles as a centralized digital platform that addresses the limitations of the current manual and fragmented process.

COMPARATIVE DISCUSSION

Compared to existing systems such as DocTrack and ODR.REGISTRAR-COC.EDU.PH, ClareFiles strengthens system integration by consolidating request submission, online payment processing, request monitoring, and administrative workflow management into one platform. Existing systems commonly focus on request monitoring alone, while ClareFiles incorporates additional features such as payment verification, real-time notifications, and centralized dashboard management.

The system also recognizes the importance of cybersecurity and data privacy in handling sensitive student information. Authentication procedures, role-based access control, and secure database management contribute to protecting confidential records. Furthermore, the scalable web-based architecture of ClareFiles allows future integration with cloud services, mobile applications, SMS notifications, and QR-based document verification.

Synthesis

The reviewed literature and related studies demonstrate that digital systems significantly improve efficiency, accessibility, transparency, and communication within educational institutions. However, many existing systems remain partially manual or fragmented. This highlights the necessity of ClareFiles as a fully integrated platform that combines document submission, payment processing, request tracking, and administrative management into a single web-based system.

METHODOLOGY

Research Design

The study utilized a descriptive-developmental research design to describe the current fragmented manual process and develop a digitalized system capable of addressing identified challenges. The Agile methodology was applied throughout the development process to support iterative improvement, flexibility, and continuous user feedback.

Participants of the Study

The study involved 100 student respondents from elementary, senior high school, and college levels, including guardians, as well as 2 administrative staff members from the registrar and records offices. Participants were selected to provide insights regarding the effectiveness and usability of the developed system.

Data Collection

Data were gathered through printed face-to-face surveys. The questionnaires evaluated user experiences regarding the current document request process and the effectiveness of the ClareFiles system after implementation.

Statistical Tools

The study used descriptive statistics including frequency, percentage, weighted mean, and ranking to analyze survey responses and evaluate system effectiveness.

System Development

The ClareFiles system was developed using Agile methodology. The development process included requirement gathering, planning, prototyping, coding, testing, deployment, and evaluation.

Expanded Technical Discussion:

System Architecture

ClareFiles utilizes a centralized web-based architecture integrating frontend user interfaces, backend processing modules, database management systems, and notification services. Students can submit requests, upload

payment proofs, monitor request status, and communicate with administrators through the platform. Administrative staff and super administrators can verify payments, manage requests, generate reports, and monitor workflows through dedicated dashboards.

Database Design

The system uses a relational database structure to organize student records, request details, payment transactions, notification logs, and administrative reports. Primary and foreign key relationships ensure data consistency and minimize redundancy. The database design supports efficient retrieval of records and real-time processing of requests.

Authentication Procedures and Access Control

Authentication procedures are implemented using username and password validation. Role-based access control restricts system access according to user responsibilities. Students can access only their own records, while administrative personnel are authorized to process and manage request transactions.

Payment Gateway Integration

The online payment feature allows students to submit proof of payment digitally, minimizing physical transactions and long payment queues. Administrative personnel verify submitted payment records through the system dashboard. Future versions may support automated e-wallet and direct bank transfer integration.

Cybersecurity and Data Privacy

The system implements authenticated access, controlled administrative privileges, and secure database management practices to protect user information. Personal data collected are used solely for academic document processing and research-related purposes. Future security improvements may include encrypted transmission, multi-factor authentication, and automated backup systems.

Cloud Deployment and Scalability

ClareFiles supports scalability and future institutional expansion through web-based deployment. Cloud-based hosting may improve accessibility, backup reliability, and system availability while reducing dependence on local infrastructure.

RESULTS AND DISCUSSION

This chapter presents the findings gathered from the surveys conducted among students and administrative staff regarding the current document request process and the effectiveness of the ClareFiles system.

Table 1. Demographic Profile of Respondents

Category	Frequency	Percentage	Rank
4th Year	25	25%	1
3rd Year	23	23%	2
Senior High School	15	15%	3.5
1st Year	15	15%	3.5
2nd Year	13	13%	5
Elementary (Guardians)	9	9%	6
BSCS	36	36%	1
BSHM	25	25%	2
SHS (TVL/ABM)	15	15%	3
Other (BEED, BSTM, etc.)	24	24%	-

The demographic profile of respondents showed that the majority of participants were fourth-year students, comprising 25% of the total respondents. Third-year students followed with 23%, while first-year students and senior high school students each represented 15% of the respondents. Elementary guardians accounted for 9% of the respondents. In terms of course or program, BSCS students represented the largest group with 36%, followed by BSHM students with 25%.

The large participation of graduating students is significant because these students frequently request academic documents for employment, graduation, and transfer purposes. Their feedback provided valuable insights regarding the efficiency and accessibility of the proposed system.

Table 2. Challenges in the Current Fragmented Manual Document Request Process

Survey Statements	Weighted Mean	Interpretation	Rank
Experience long lines when paying in person	4.3	Strongly Agree	1
Hard to know current status of requests	4.22	Agree	2
Delays due to many steps in submission	4.20	Agree	3
Grand Weighted Mean	**4.28**	**Strongly Agree**	**_**

The pre-survey results revealed several challenges in the current fragmented manual process. The highest-rated problem was long lines during in-person payment, which obtained a weighted mean of 4.43 and was interpreted as Strongly Agree. Respondents also agreed that it was difficult to track the status of requests, with a weighted mean of 4.22. Delays caused by multiple submission steps received a weighted mean of 4.20.

The grand weighted mean of 4.28 indicated that respondents strongly agreed that the current system was inefficient and inconvenient. These findings confirmed that the existing process created significant delays and justified the development of a more centralized and fully digitalized platform.

Table 3. Student Evaluation of ClareFiles System Effectiveness

Evaluation Criteria	Weighted Mean	Interpretation	Rank
Accessibility: I can access the system anywhere	4.63	Strongly Agree	1
Efficiency: The process is much faster than the old system	4.59	Strongly Agree	2
Tracking: Real-time status tracking is accurate	4.56	Strongly Agree	3
Security: Personal information and payment are safe	4.54	Strongly Agree	4
Usability: The interface is clean and easy to navigate	4.48	Strongly Agree	5
Grand Weighted Mean	**4.56**	**Strongly Agree**	**-**

To address these issues, the researchers developed ClareFiles, which integrated request submission, payment, tracking, and communication into a single web-based system. The post-survey evaluation demonstrated significant improvements in service delivery and user satisfaction.

Among the evaluated features, Accessibility received the highest weighted mean of 4.63, interpreted as Strongly Agree. This indicates that students appreciated the ability to access the system anytime and anywhere without visiting the institution physically. The feature directly addressed the problem of long queues and limited access in the old process.

Efficiency ranked second with a weighted mean of 4.59. Respondents agreed that the system significantly reduced processing time compared to the old method. Real-time tracking received a weighted mean of 4.56, showing that students valued the ability to monitor the status of their requests online.

Security obtained a weighted mean of 4.54, indicating that respondents trusted the system's ability to protect sensitive information and payment details. Usability received a weighted mean of 4.48, demonstrating that users found the interface clean, organized, and easy to navigate.

The grand weighted mean of 4.56 confirmed that the ClareFiles system was Highly Effective. The results

demonstrate that the integration of online submission, digital payment, tracking, and automated communication improved the overall document request experience.

Table 4. Administrative Staff Assessment of Workflow Optimization

Statement	Weighted Mean	Interpretation	Rank
The dashboard effectively organizes all requests	5.00	Strongly Agree	2
Real-time tracking eliminates manual monitoring	5.00	Strongly Agree	2
Automated emails reduced follow-up workload	5.00	Strongly Agree	2
Grand Weighted Mean	**5.00**	**Strongly Agree**	**-**

The evaluation conducted by administrative staff also produced positive results. The records staff gave a perfect weighted mean of 5.00 in all indicators related to workflow optimization. Staff strongly agreed that the dashboard effectively organized requests, reduced manual monitoring, and minimized follow-up workloads through automated notifications.

The positive feedback from administrative staff highlights the importance of automation in improving efficiency within the Registrar and Records Office. By reducing manual paperwork and organizing records systematically, the system enabled staff to process requests more effectively.

The findings of the study are consistent with the reviewed literature and studies that emphasized the benefits of digital systems in educational institutions. Similar to previous studies, the ClareFiles system improved accessibility, reduced delays, enhanced communication, and optimized administrative workflows.

The transition from the fragmented manual process to a centralized digital platform resulted in improved user satisfaction and operational efficiency. The increase from the pre-survey weighted mean of 4.28 to the post-survey weighted mean of 4.56 demonstrates the effectiveness of the developed system.

Overall, the results indicate that ClareFiles successfully addressed the challenges experienced in the current process and provided a more convenient, accessible, and organized solution for academic document management at St. Clare College of Caloocan.

CONCLUSION

The study successfully developed and evaluated ClareFiles, a fully digitalized web-based system for managing academic document requests at St. Clare College of Caloocan. The findings revealed that the current document request process, which relies on Google Forms, email, and in-person transactions, creates inconvenience, delays, and inefficiencies for both students and administrative staff.

The pre-survey results confirmed that long lines during in-person payment and difficulties in tracking request status were the major challenges experienced by users. These findings justified the need for a centralized and fully digitalized solution.

Through the use of Agile methodology, the researchers developed ClareFiles as a platform that integrates online request submission, digital payment, real-time tracking, automated email notifications, and administrative workflow management into a single system. The system was designed to improve accessibility, usability, communication, and processing efficiency.

The post-survey findings demonstrated that ClareFiles effectively addressed the problems identified in the previous system. The system obtained a grand weighted mean of 4.56, interpreted as Highly Effective. Accessibility emerged as the most valued feature, indicating that users appreciated the convenience of accessing services remotely. Respondents also positively evaluated the system's efficiency, security, usability, and tracking capabilities.

The evaluation from administrative staff further confirmed the effectiveness of the system. The staff strongly agreed that the dashboard and automated features reduced manual monitoring, improved organization of

requests, and optimized communication with students. These findings show that ClareFiles not only benefits students but also enhances institutional workflow and operational management.

The study also supports the growing importance of digital transformation in educational institutions. By reducing dependence on manual procedures and physical transactions, web-based systems improve transparency, accessibility, and service quality. ClareFiles demonstrates how technology can modernize document request processes and improve user satisfaction.

Based on the results of the study, it can be concluded that ClareFiles is an effective and reliable solution for academic document management at St. Clare College of Caloocan. The system successfully streamlined document processing, minimized delays, enhanced accessibility, and improved communication between students and administrative staff.

The researchers recommend that the institution officially adopt ClareFiles as its primary document request platform. Future improvements may include broader online payment integration, SMS notification services, mobile application development, and expanded database integration to further enhance the system's functionality and user experience.

RECOMMENDATIONS

The following recommendations are proposed for future improvement and sustainability of the ClareFiles system:

1. Integrate SMS notifications for real-time request updates.
2. Develop a dedicated mobile application for improved accessibility.
3. Implement QR-based document verification for enhanced authenticity validation.
4. Expand payment gateway support to include additional e-wallets and bank transfers.
5. Apply AI-powered request prioritization for urgent document processing.
6. Incorporate automated document generation and approval workflows.
7. Utilize cloud-based backup and disaster recovery systems.
8. Conduct regular cybersecurity monitoring and database maintenance.
9. Provide periodic staff training for efficient dashboard management.
10. Expand future studies to include larger and more diverse samples from multiple educational institutions.

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