ASSESSING THE CENTRALIZED STUDENT ORGANIZATION HUB: IMPLICATIONS FOR STUDENT GOVERNANCE AND OFFICE OPERATIONS IN STUDENT LIFE

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ABSTRACT

This study presents the design and evaluation of a centralized web-based Student Organization Hub for Southwestern University PHINMA, aimed at yaddressing operational inefficiencies in student governance, particularly in maroon elections, accreditation, and information dissemination. Motivated by a critically low voter turnout of only 9% in the 2023 university elections, the system seeks to enhance student engagement, streamline accreditation processes, and improve transparency in candidate visibility. Using a mixed-methods approach, data were collected from 424 student organization members, 36 accreditation committee members, and 72 Commission on Elections (COMELEC) officers through surveys and interviews. Quantitative analysis was conducted using IBM SPSS, and qualitative themes were derived through MAXQDA-based thematic and meta-analysis. The system was developed using Agile-Kanban and DevOps methodologies, integrating real-time voting, digital accreditation workflows, and automated information delivery. Post-deployment evaluation, guided by the UTAUT model, indicated high acceptability across all metrics, particularly in perceived usefulness (mean = 4.83) and overall satisfaction (mean = 5.00). These findings suggest that the proposed platform has strong potential to improve institutional governance by increasing operational efficiency, engagement, and information accessibility.

Keywords: centralized system, student governance, online voting, document management, higher education

1. INTRODUCTION

Student organizations are essential in shaping leadership, communication, and civic responsibility among students in higher education. They offer opportunities for personal growth beyond academic instruction and are recognized for fostering civic awareness, professionalism, and social engagement [1]. However, despite their value, many student organizations operate under outdated manual systems that reduce efficiency and hinder participation.

At Southwestern University (SWU) PHINMA, these operational gaps are evident. During the 2023 Maroon Elections, only 9% of the enrolled student population participated, indicating significant challenges in student engagement. Key contributing factors include poor scheduling, lack of effective information dissemination, and reliance on manual election and documentation processes. These inefficiencies not only limit participation but also strain administrative resources within the Commission on Elections (COMELEC), Student Life Office, and student organizations.

Theoretical foundations for this study draw from digital transformation and organizational efficiency frameworks. Centralized systems are widely recognized for their ability to enhance process efficiency, promote information

visibility, and improve stakeholder collaboration [2], [3]. Implementing digital platforms in academic institutions has also been linked to better data management, increased transparency, and higher user satisfaction [4].

This study addresses the fragmentation of student governance operations at Southwestern University PHINMA by proposing a centralized web-based system. The platform aims to modernize voting processes, centralize document accreditation workflows, and improve the accessibility of candidate and party-list information. By automating administrative tasks and improving communication flow, the system is expected to boost student participation and streamline coordination between governance bodies.

The primary objective is to design and evaluate a centralized student organization hub that enhances operational efficiency, supports civic engagement, and modernizes student governance functions in alignment with institutional needs. Specifically, it seeks to (a) identify the needs and factors contributing to existing issues in SWU's COMELEC, Student organizations (SO) and Student Life (SL) office focusing on (i) student participation in elections, (ii) Visibility of candidates and party lists' information and (iii) document management process for accreditation; (b) Identify the design frameworks to streamline the operational procedures of SWU's COMELEC , SO and SL Office; (c) Identify the necessary functional components, features, and design required for the development of the SWU SO Hub Website; and (d) evaluate the project's acceptability and impact on SWU's COMELEC, SO AND SL office in terms of operations.

Challenges in Student Participation in Elections

Low student turnout in university elections is often tied to inefficient and outdated voting systems. Manual elections are time-consuming, logistically difficult, and costly due to the physical handling of votes [5]. E-voting significantly improves election efficiency, reducing the burden of vote tabulation and logistical challenges [6]. Traditional voting systems also present manipulation risks, accessibility barriers, and discourage participation, highlighting the need for mobile-based and digital alternatives [7]. In the case of Southwestern University PHINMA, only 9%

voter turnout in the 2023 election illustrates the critical need for reform.

Challenges in Information Dissemination

Effective communication of candidate information is essential to informed student voting. Decentralized platforms are limited in ensuring consistent and trustworthy information sharing [8]. Poor communication strategies and concerns over data reliability hinder institutional engagement [9]. University-level communication structures often lack student-centered messaging, reducing awareness and participation in student governance [10]. These challenges emphasize the importance of a centralized digital information platform.

Problems in Manual Document Management

Traditional, paper-based document systems have proven inadequate in modern academic environments. Physical file systems create delays, loss risks, and are difficult to scale [11]. Manual storage also causes poor accessibility and retrieval issues, encouraging a shift to digital alternatives [12]. Document accumulation increases inefficiency and operational costs, especially in educational institutions managing accreditation processes [13].

Frameworks for Modernizing Governance Operations

Digital frameworks have been widely adopted to modernize student governance systems. The MVC model combined with tools like CodeIgniter and MySQL is effective for building structured online voting platforms [6]. Secure, database-driven systems using encryption offer added privacy and reliability [14]. Technologies such as PHP, MySQL, and Flash have supported scalable election applications [15].

Impacts of Centralized Systems

Centralized platforms have demonstrated measurable improvements in usability, system transparency, and administrative coordination. Evaluation models show strong user acceptance of centralized student systems [16]. Document Management Systems (DMS) reduce costs and enhance oversight when applied to institutional and government settings [16]. High user satisfaction has been reported

when universities adopt centralized digital solutions [17].

2. IMPLEMENTATION METHOD

This study adopts a both quantitative and qualitative approach and a triangulation of developmental and descriptive research methodologies. The descriptive method was used to identify challenges in student governance processes, while the developmental method guided the design of the centralized website system based on identified needs. Data were gathered using two main techniques namely: (a) Survey and (b) interview. Questionnaires were reviewed and approved by the Research IRB of Southwestern University PHINMA. Surveu forms were distributed to student organizations, Student Life staffs, and the Southwestern University PHINMA's Commission on Elections (SWU COMELEC), covering topics such as demographics, election turnout issues, information dissemination, and document management satisfaction. While one-to-one Interviews were conducted with the Student Life director or Accreditation Head, student organization representative, and SWU COMELEC head to gather qualitative data on operational frameworks and improvement suggestions.

Cluster sampling technique was used to draw participants involving a total of 424 student organization members, 36 accreditation committee members, and 72 COMELEC committee respondents, calculated using Cochran's formula with a confidence level of 90% and a 10% margin of error. For the interview, purposive sampling was employed, targeting two key stakeholders directly involved in elections, document management, and candidate information dissemination.

For analysing the data, IBM SPSS software was used to implement descriptive statistics (mean, median, mode, range, and interquartile range) to interpret survey results.While in analysing the qualitative data, thematic analysis and Meta-Analysis were performed using MAXQDA. Interviews were transcribed and analyzed to identify recurring themes and patterns aligned with stakeholder needs and system features.

Development Methodology

The project applied Agile Kanban and DevOps methodologies. Kanban was used for visualizing workflow, limiting work in progress, managing feedback loops, and iterating project tasks. DevOps ensured continuous integration and delivery (CI/CD), with real-time monitoring, automated testing, and version control using tools like Git, Laravel, and Docker.

Procedures

- The process followed structured phases: planning, development (frontend and backend), testing (integration, quality, UTAUT), and deployment.
- Project milestones and module development timelines were laid out from November 2023 to February 2025, covering 100% of project tasks.

3. RESULTS AND DISCUSSIONS

This study aimed to assess and address key issues related to student elections, candidate visibility, and accreditation document management at Southwestern University PHINMA. A combination of surveys and interviews revealed patterns in user perception and identified critical pain points. Results were analyzed both quantitatively and qualitatively, and system components were designed in response.

Findings on student participation in elections revealed low engagement due to manual processes, scheduling conflicts, and vote-counting errors. Qualitative interviews highlighted these as recurring challenges, while survey responses showed moderate agreement regarding students' confidence in their voting rights and system awareness. The quantitative data showed a mean score of 3.63 and 3.96 for confidence in election information and voting access respectively, and a lower mean of 3.56 for satisfaction with the existing system. These results as reflected in Figure 1 suggests a need for more accessible and transparent voting processes.
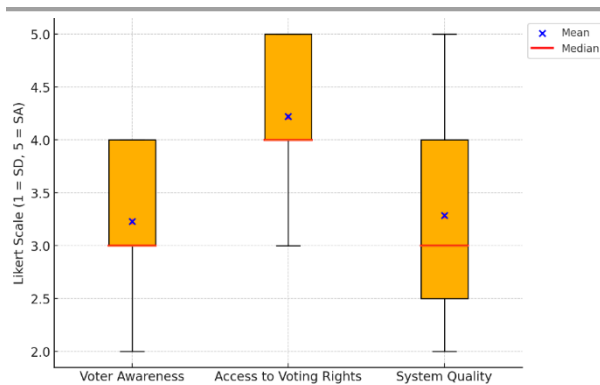
Figure 1. Box Plot - COMELEC Survey on Maroon Election Performance

Candidate and party-list visibility also emerged as a concern. Although stakeholders noted some improvements through faculty engagement, incentives, and use of social media, survey data showed in Figure 2 a mean of 4.17 for awareness of political affiliation and 3.74 for candidate qualities. These scores indicate stronger visibility of party affiliation than individual candidate merit. Students largely supported tools that would present more comprehensive candidate information.
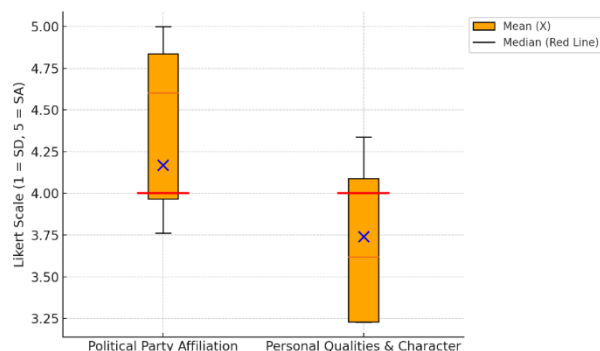

Figure 2. Box Plot - COMELEC Survey on Political Info Dissemination

Document management in student organization accreditation presented the most critical issues. Interviews with organization officers and committee members pointed to repeated paperwork, delayed communication, and inaccessible submission systems. Student survey responses reflected mixed feedback as reflected in Figure 3 showing moderate satisfaction with support and digital form availability, but concern about office location accessibility.
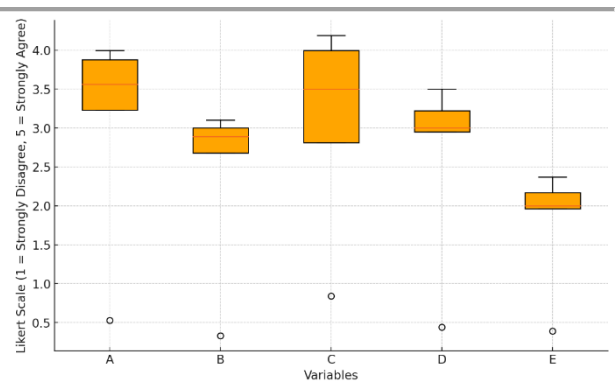
Figure 3. Box Plot - Organization Survey on Accreditation Process

From the accreditation committees' perspective, all categories—form availability, ease of communication, tracking, and deadline management—scored below 1.0, signaling universal dissatisfaction. The results as shown in Figure 4 supports the need for a digital, centralized platform to improve document routing, submission tracking, and cross-office coordination.
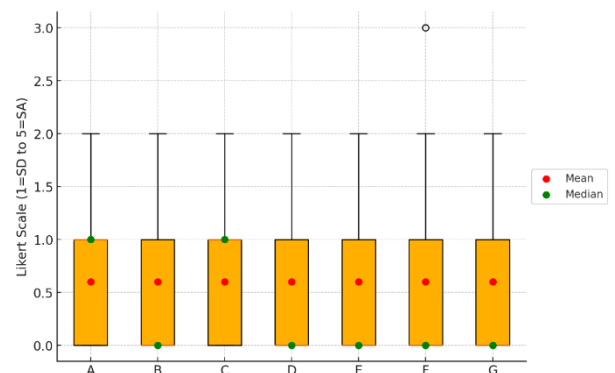

Figure 4. Box Plot - Accreditation Committee Survey on Accreditation Process

In response to these findings, the proposed system incorporated two core subsystems. The first, an Election System, integrates a precinct finder, candidate information portal, and automated vote counting. The second, an Accreditation System, includes modules for form generation, submission tracking, calendar syncing, and real-time notifications. These modules directly respond to the specific problem points outlined earlier.

To evaluate user acceptance, a UTAUT-based survey was conducted with COMELEC officers. Results as reflected in Figure 5 showed very high agreement with statements regarding perceived usefulness (mean = 4.83), ease of use (4.73), social influence (4.70), facilitating conditions (4.67), and overall

satisfaction (5.00). These scores reflect strong confidence in the system's potential to improve governance processes.
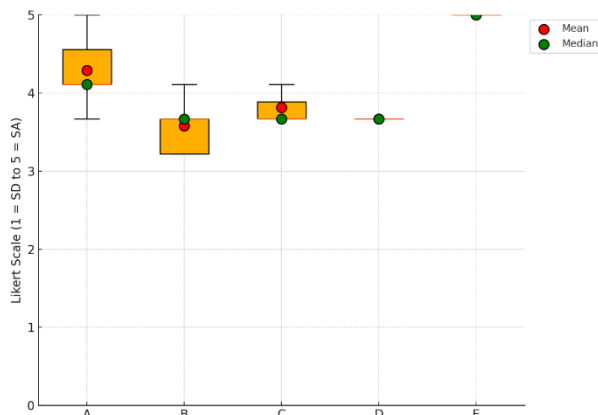
Figure 5. Box Plot - COMELEC Survey on System Acceptability

The discussion of these results reveals a consistent theme: that manual, fragmented processes limit engagement, efficiency, and transparency in student governance. Survey data and interviews consistently pointed to pain points that were confirmed across multiple user groups. The proposed system's design was guided directly by these findings, incorporating modular components aligned with stakeholder expectations.

Candidate information visibility, while improved by social efforts, still lacked consistent depth. The system's profile module, paired with voting integration, is a direct response to the call for more informed participation. Meanwhile, the severe dissatisfaction of accreditation committees reinforced the urgency for automation, which was implemented through dashboard analytics, document tracking, and submission archiving.

The system's high acceptability rating by COMELEC suggests strong implementation readiness, but low response rates from other groups (such as student organizations and committee members) indicate the need for further testing and post-deployment evaluation.

4. CONCLUSION

This study addressed key inefficiencies in student governance at Southwestern University PHINMA by designing and evaluating a centralized Student Organization Hub. Grounded in mixed-methods research, the project identified critical operational gaps—including low voter turnout, fragmented accreditation processes, and insufficient candidate information dissemination.

To resolve these issues, two integrated digital subsystems were developed: an Election System and an Accreditation System. The Election System featured real-time tracking, automated tallying, and enhanced candidate profiling, while the Accreditation System included document submission workflows, feedback mechanisms, and progress monitoring. Evaluation using the UTAUT model revealed high acceptability among COMELEC officers (e.g., Perceived Usefulness = 4.83; Satisfaction = 5.00), indicating strong implementation readiness.

However, further validation is required for the accreditation component due to lower response rates from student organizations and committee members. Overall, the centralized platform shows promise in increasing participation, improving transparency, and modernizing administrative processes within student governance.

Based on these findings, the following recommendations are made for future development and research:

For Further Evaluation
- Conduct post-deployment surveys with broader stakeholder groups (including accreditation committees and student organizations) to validate impact.
- Perform system log analysis and user feedback reviews to refine usability and performance.

For Future Research and Development
- Implement pre-deployment assessments using a larger, more representative sample.
- Extend the system's scope to additional university departments for broader applicability.
- Evaluate system scalability across different institutional contexts.

For Technical Enhancements
- Integrate SMS-based alerts and verification to improve communication.
- Explore blockchain technologies to strengthen data integrity and auditability.

For Institutional Impact
- Use this implementation as a model for digital governance transformation at other higher education institutions.

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