

The Role of Information Systems in Student Organizations at Satya Wacana Christian University

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Abstract

Information systems have become an integral component in supporting the operations of student organizations at Satya Wacana Christian University (UKSW). These systems are designed to streamline data management, enhance communication, and improve operational efficiency, ultimately supporting academic and extracurricular activities. Despite their potential, the implementation of information systems in student organizations faces challenges, including technical limitations and resistance to change. This qualitative study employed a case study approach to explore the role, supporting factors, and challenges of information systems in student organizations at UKSW. Data were collected through in-depth interviews with three student leaders, document analysis, and observation. A thematic analysis method was used to categorize and interpret the data, providing a comprehensive understanding of the system's impact and areas for improvement. The findings reveal that information systems significantly improve the efficiency of data management, event coordination, and communication among student organizations. Centralized data systems facilitate task distribution and enhance transparency and accountability. However, challenges such as technical limitations among students, system bugs, and inconsistent updates hinder optimal utilization. Strong institutional support, active student involvement, and continuous training were identified as critical enablers of successful implementation. The study highlights the need for improvements in user training, technical support, and system interactivity to overcome challenges and maximize the benefits of information systems. Recommendations include increasing system user-friendliness, ensuring regular updates, and fostering collaboration between IT teams and student organizations. These steps are crucial for enhancing system adoption, engagement, and overall effectiveness.

Keywords: Information Systems; Student Organizations; Data Management; Event Coordination

1 Introduction

Information systems have become an essential component of modern organizations, including higher education institutions. In Indonesia, the Ministry of Communication and Informatics has prioritized digital transformation across various sectors to enhance operational efficiency and service delivery. Education is one of these priority sectors, where information systems are utilized to expand access, improve learning outcomes, and streamline administrative processes (Bratha, 2022; Marwadi & Ikasari, 2023). In higher education, information systems play a dual role by supporting academic activities and facilitating the management of co-curricular and extracurricular

initiatives. Their integration has proven beneficial in promoting collaboration, improving transparency, and enhancing the quality of services offered to stakeholders.

Satya Wacana Christian University (UKSW), a prominent private university in Salatiga, Indonesia, established in 1956, serves as a prime example of how information systems can be effectively utilized. Known for its diverse range of academic programs and vibrant campus life, UKSW has developed an integrated technological infrastructure to manage various aspects of its operations. These systems enable efficient handling of student records, academic schedules, and research management. Beyond academics, UKSW



places a strong emphasis on student engagement through its well-structured student organizations, which include the Student Executive Board (BEM), Student Activity Units (UKM), and departmental student associations (Pangaribowo & Kristianingsih, 2023).

Student organizations play a vital role in fostering personal and professional development among students. These organizations manage a variety of activities, ranging from academic and sports programs to cultural and social initiatives. The effective management of these activities relies heavily on information systems. Digital platforms are used to manage member data, track schedules, and coordinate events. Moreover, they provide tools for disseminating information, such as event announcements and registration forms, ensuring timely and accurate communication. The use of information systems also promotes transparency and accountability by enabling detailed financial reporting and structured documentation of activities (Landjamara Ndjurumana et al., 2020).

Adoption of information systems has led to significant improvements in the operational efficiency of student organizations in UKSW. These systems support seamless coordination among various organizations, fostering collaboration and synergy. They also enable personalized engagement by allowing students to access information relevant to their interests, participate in discussions, and provide feedback. Such functionality not only enhances student experiences but also strengthens the overall campus environment, making it more inclusive and dynamic. Furthermore, the data generated through these systems offer valuable insights for planning and decision-making, allowing student organizations to adapt to changing needs and expectations.

This study focuses on the role of information systems in enhancing the effectiveness of student organizations at UKSW. It seeks to understand how these systems facilitate the management of activities, resources, and communication within student organizations. Additionally, the research aims to identify the supporting and inhibiting factors in the implementation of these systems. The findings of this study are expected to provide insights into the best practices for integrating information systems in student organizations,

contributing to the broader discourse on digital transformation in higher education.

2 Grand Theory

2.1 Information Systems

Information systems refer to an integrated set of components, including procedures, hardware, software, and human resources, designed to collect, process, store, and distribute information effectively. These systems are crucial for organizations as they provide accurate and timely data that support better decision-making processes (Eko Nugroho, 2016). Information systems encompass various technological elements, such as computers, networks, databases, and applications, enabling seamless access and utilization of information by users. In business contexts, they integrate operational and managerial activities across departments, offering a comprehensive overview of organizational performance and facilitating coordination to enhance efficiency (Supriyanto & Ismawati, 2019).

The effectiveness of information systems lies in the interaction of its primary components: hardware, software, databases, networks, people, procedures, and data. Hardware includes physical devices like servers and computers that process and store data, while software comprises operating systems and business applications tailored to organizational needs, such as enterprise resource planning (ERP) and customer relationship management (CRM) systems. Databases, managed through systems like MySQL or Oracle, organize large volumes of data and ensure security and accessibility. Networks connect these components, facilitating real-time data transfer and secure communication across devices and users. The human element—comprising administrators, developers, and end-users—ensures the system's functionality and effectiveness, while well-defined procedures guide data input, processing, and retrieval to align with organizational goals (Prabowo, 2020).

Information systems can be categorized based on their organizational level, functionality, and managerial activity support. At the departmental level, systems address specific operational needs, such as human resource management systems. At the organizational level, integrated systems like ERP provide a unified platform for collaboration across departments.



Functionally, systems can specialize in areas like finance, marketing, or manufacturing, while managerial activity support includes transaction processing systems (TPS), decision support systems (DSS), and executive information systems (EIS). These classifications highlight the versatility of information systems in addressing diverse operational and strategic needs within organizations (Prabowo, 2020).

Information systems are instrumental in facilitating digital transformation across various sectors, such as healthcare, education, and governance. In healthcare, electronic medical records and telemedicine improve accessibility and efficiency. In education, e-learning platforms enable broader access to resources and personalized learning experiences. Governance benefits from e-government initiatives that enhance transparency and streamline administrative processes. Across industries, automation and data analytics optimize operations and inform decision-making. By integrating these systems, organizations can respond more effectively to the dynamic demands of their environments, fostering innovation and competitive advantage (Prabowo, 2020).

Investing in robust information systems is essential for organizational success in an era of rapid technological advancement. These systems not only enhance operational efficiency but also support data-driven strategies that improve decision-making and adaptability. By integrating advanced technologies such as artificial intelligence and data analytics, organizations can gain deeper insights into their operations and markets, driving innovation and long-term growth. Consequently, information systems serve as a critical foundation for achieving organizational objectives and sustaining competitive advantages in an increasingly complex and dynamic environment (Supriyanto & Ismawati, 2019).

2.2 Student Organization

Student organizations serve as vital platforms in higher education, enabling students to explore and develop their potential through creative, constructive, and aspirational activities. These organizations foster social interaction and camaraderie among students, creating a supportive community that enriches academic and personal experiences. Furthermore, they act as preparatory

grounds for leadership development, equipping students with critical thinking, problem-solving, and decision-making skills necessary for future professional and social endeavors (Munazar, 2019).

The primary goals of student organizations are multifaceted. They aim to nurture leadership skills through activities such as event management and team coordination, providing students with practical opportunities to enhance their managerial capabilities. Moreover, these organizations serve as channels for students to voice their aspirations and advocate for change within academic and broader societal contexts. By engaging in academic events like seminars and workshops, students gain deeper insights into specific topics and develop analytical skills, complementing formal education (Sujarwo, 2017).

Student organizations also play a significant role in fostering social skills and cultural appreciation. Through collaborative projects, debates, and cultural events, students refine their interpersonal abilities, strengthen teamwork, and develop effective communication. Activities like festivals and artistic showcases not only promote creativity but also build a sense of pride and a strong campus identity, enriching the university experience beyond academics (Sujarwo, 2017).

In Indonesia, student organizations can be categorized into internal and external groups. Internal organizations, such as Student Representative Councils (BPM) and Faculty or Program Committees, focus on campus-specific issues, including academic development and student welfare. External organizations, such as the Muslim Student Association (HMI) and Indonesian Christian Student Movement (GMKI), extend their reach to broader societal issues, engaging in social advocacy and contributing to national discourse (Munazar, 2019).

By providing a structured environment for leadership, social engagement, and academic exploration, student organizations prepare students to become proactive, informed, and empathetic members of society. These organizations bridge the gap between academic life and societal responsibilities, offering a dynamic platform for students to develop their potential while addressing pressing social issues. This dual role of fostering individual growth and enabling societal



contributions highlights their indispensable position within higher education.

3 Methods

This study employs a qualitative case study methodology to explore the role of information systems in student organizations at Satya Wacana Christian University (UKSW). A qualitative approach allows for a deep understanding of the context in which information systems operate, focusing on the intricate dynamics of administrative processes, organizational functions, and interpersonal interactions within the student organizations. This methodology enables a holistic exploration of how information systems influence operational efficiency and the decision-making processes in student organizations, offering insights into the factors that support or hinder their implementation.

The research focuses on three student leaders who are actively involved in managing different student organizations at UKSW. This purposive selection ensures that the participants possess the requisite experience and knowledge to provide meaningful insights into the adoption and utilization of information systems. These participants offer a detailed perspective on the integration of information systems into organizational activities and the challenges faced during implementation. By centering the study on these key individuals, the research aims to address two main objectives: understanding the role of information systems in enhancing organizational operations and identifying barriers and enablers of successful implementation.

Data collection methods include in-depth interviews and document analysis. The interviews allow for the collection of rich, context-specific data on participants' experiences and perceptions of information systems. These insights are supplemented by document analysis, which examines meeting notes, reports, and archival records to validate and provide additional context to the primary data. The combination of these techniques ensures a comprehensive understanding of the study's focus and strengthens the reliability of the findings by cross-referencing multiple data sources.

Data analysis is conducted in several stages, including data reduction, data display, and conclusion drawing. Collected data are filtered and

categorized into themes relevant to the research objectives. Thematic analysis is employed to identify patterns and relationships within the data, which are then systematically presented through narrative and visual formats for clarity. Finally, conclusions are drawn and verified through triangulation techniques, which include cross-checking data sources, collecting data at different times, and using multiple data collection methods. This rigorous process ensures the validity and reliability of the study, providing actionable insights into the integration and optimization of information systems in student organizations at UKSW.

4 Results and Discussion

4.1 Results

At Satya Wacana Christian University (UKSW), information systems play a pivotal role in managing member data across various student organizations. These systems enable efficient and secure data management, allowing authorized administrators to access, update, and organize data effectively. By categorizing members based on their roles and divisions, the system simplifies task distribution and internal communication. Moreover, it supports tracking individual contributions and membership histories, providing valuable insights into organizational dynamics. As one participant noted *"The information system simplifies storing and accessing member data efficiently. All data is centralized and accessible to authorized administrators, minimizing the risk of data loss. With this system, we can categorize member data by divisions and roles, making task distribution and internal communication easier. It also facilitates tracking membership history and individual contributions."*

Information systems are also critical in organizing events and activities. They enable swift dissemination of information via digital platforms, ensuring students receive updates on schedules and activities promptly. However, the effectiveness is occasionally limited by irregular updates, which can hinder students from accessing the latest information. Improvements in interactivity and user-friendliness are recommended to address these issues. As highlighted by a respondent *"The system is very effective in reaching all students quickly. However, the effectiveness can sometimes be hampered by the lack of regular updates."*



Improvements in interactivity and user-friendliness are necessary."

Additionally, information systems enhance coordination among student organizations by providing shared platforms for scheduling and communication. Tools like Trello and digital calendars allow organizations to efficiently manage events and synchronize activities. However, some challenges remain, particularly in the integration of different platforms. A respondent emphasized *"Using Trello and digital calendars helps us manage schedules efficiently. The campus information system provides scheduling features that ease inter-division coordination."*

In terms of financial transparency and accountability, information systems are invaluable. Features like real-time financial reporting enable members to monitor expenditures and ensure proper budget allocation. Collaborative tools like Google Sheets further enhance transparency by providing accessible and shareable records. One participant stated *"Our information system includes financial reporting features accessible to members. Tools like Google Sheets help maintain financial transparency."*

The successful implementation of information systems at UKSW relies on several key factors. Strong institutional support, adequate infrastructure, and active student engagement are essential for ensuring effective adoption. Regular training for users is another critical element, providing students and staff with the necessary skills to operate the system optimally. One participant commented *"Key factors include university support, active student involvement, and adequate training. Openness to new technology and intensive socialization of its benefits are also crucial."*

Challenges in implementation include technical limitations among users, resistance to change, and system bugs. Some students lack the technical proficiency to use the system effectively, while others are hesitant to transition from manual processes. In addition, technical issues, such as bugs, disrupt operational efficiency and undermine trust in the system. A participant noted *"The lack of technical understanding among students and infrastructure challenges are significant barriers. Resistance to change and insufficient initial socialization also hinder implementation."*

Technical issues like system bugs and a lack of continuous training remain problematic."

Despite these challenges, communication between IT teams and users has been instrumental in maintaining system relevance. Continued development, responsive technical support, and feedback mechanisms ensure the system evolves to meet users' needs. These efforts highlight the importance of collaboration in optimizing the benefits of information systems within student organizations.

4.2 Discussion

At Satya Wacana Christian University (UKSW), information systems play a transformative role in managing and enhancing the operations of student organizations. The centralized data management system allows for efficient storage, access, and updates of member information. This system not only reduces the risk of data loss but also supports task delegation and internal communication by categorizing members based on roles and divisions. Anwar et al. (2016) highlight similar benefits, emphasizing that centralized systems improve efficiency and enable seamless administrative processes. The ability to track membership history and individual contributions further enriches organizational insights, fostering a better understanding of member engagement and effectiveness.

Information systems ensure data security, allowing only authorized personnel to access sensitive member information. This fosters trust among members and enhances transparency in organizational operations. As Mujiono (2017) points out, systems that facilitate easy updates and ensure data accuracy significantly improve operational efficiency. At UKSW, this capability supports informed decision-making, strengthens strategic planning, and promotes transparency within student organizations. However, challenges such as inconsistent updates and occasional user disengagement with platforms highlight areas for improvement. Efforts to address these issues, such as increasing the interactivity and user-friendliness of the system, could further enhance its impact.

Information systems have demonstrated significant effectiveness, especially in event and activity management. These systems enable rapid dissemination of schedules, updates, and event details via digital platforms, ensuring timely



communication with students. As Aswati et al. (2015) note, such systems not only improve accessibility but also enhance transparency, allowing students to actively engage in campus activities. However, irregular updates and occasional lapses in communication have limited the system's full potential. Addressing these shortcomings requires continuous monitoring and improvement of the platform's interactive features to ensure consistent student engagement and participation.

Coordination among student organizations has also benefited from the use of integrated information systems. Platforms like Trello and digital calendars facilitate efficient scheduling and real-time updates, reducing communication gaps and fostering better collaboration. As Aswati et al. (2015) argue, integrated systems enhance transparency and streamline resource allocation. Despite these benefits, technical challenges such as incomplete platform integration occasionally hinder optimal coordination. Further development and integration of these systems can help overcome these barriers, maximizing their utility in supporting inter-organizational activities at UKSW.

The success of information system implementation in UKSW's student organizations hinges on several critical factors. Institutional support is a cornerstone of this success, as it ensures adequate funding, infrastructure, and policy backing for effective system deployment. Manurung & Manuputty (2020) emphasize the importance of such support in facilitating access to essential resources, including well-maintained hardware and specialized software (Manurung & Manuputty, 2020). At UKSW, the university's commitment to technological advancement provides the foundation for leveraging information systems as strategic tools for operational and organizational growth.

Active student participation further strengthens the implementation process. By involving students in system development, testing, and evaluation, the university ensures that the platform aligns with the actual needs and preferences of its users. This participatory approach fosters a sense of ownership and encourages widespread adoption. Continuous training and capacity-building initiatives are equally important. Comprehensive and regular

training sessions equip students and staff with the necessary skills to operate and optimize the system effectively, as Aswati et al. (2015) assert. Such initiatives help bridge knowledge gaps, reduce resistance to technology, and ensure that users remain up-to-date with system advancements (Aswati et al., 2015).

Despite these enabling factors, several challenges persist. Limited technical knowledge among users often hinders the system's adoption and utilization. Students who lack familiarity with complex system features may struggle to maximize its potential, leading to inefficiencies in data management and organizational processes. Resistance to change further exacerbates this issue, particularly among those accustomed to traditional manual workflows. These findings align with those of Aswati et al. (2015), who highlight the importance of user education and advocacy in overcoming resistance and fostering a culture of technological acceptance (Aswati et al., 2015).

Technical challenges, such as bugs, system errors, and occasional downtime, also pose significant obstacles. These issues not only disrupt daily operations but also undermine user confidence in the system's reliability. Regular maintenance, swift technical support, and iterative system improvements are critical in addressing these challenges. Manurung & Manuputty (2020) emphasize the need for consistent technical oversight and user feedback loops to ensure system robustness and adaptability. Additionally, providing accessible support channels, such as help desks and online tutorials, can further enhance user confidence and system efficacy (Manurung & Manuputty, 2020).

Effective communication between IT teams and student organization members is crucial for sustaining the relevance and functionality of the system. Collaborative development processes and continuous feedback mechanisms allow for iterative system updates that reflect users' evolving needs. Furthermore, fostering a culture of transparency and accountability within organizations helps maximize the system's impact, ensuring that it serves as a tool for empowerment rather than mere administrative convenience.

5 Conclusion

At Satya Wacana Christian University (UKSW), information systems play a pivotal role



in enhancing the management and operations of student organizations. These systems streamline data handling through centralized storage, enabling secure and efficient access for authorized administrators. They support categorization by divisions and roles, simplifying task distribution and fostering effective internal communication. Additionally, features such as membership history tracking and contribution analysis enrich organizational insights. Beyond data management, integrated digital platforms enable the rapid dissemination of event schedules and updates, promoting active student engagement in both academic and extracurricular activities. However, the system's effectiveness can be further enhanced by improving interactivity and user-friendliness to ensure broader accessibility and seamless usage.

The successful implementation of these systems at UKSW relies on strong institutional support, active student participation, and continuous training programs. Institutional backing ensures adequate infrastructure, funding, and supportive policies, while student involvement helps align system functionalities with user needs. Despite these enablers, challenges persist, such as limited technical proficiency among students, resistance to change, and technical issues like system bugs. These barriers hinder optimal system utilization, particularly in data management and internal communication. Addressing these challenges through targeted training, robust technical support, and iterative system improvements will ensure that information systems continue to empower student organizations, fostering efficiency, transparency, and active participation across campus activities.

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