JMSP (Jurnal Manajemen dan Supervisi Pendidikan)
Volume 10 Nomor 1 Bulan NovemberTahun 2025

ISSN : 2541-4429 (Online)
: 2580-3417 (Print)
Available Online in http://journal2.um.ac.id/index.php/jmsp/

School Management Information System as a Solution for Digitizing Administration and Student Monitoring

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Article received: November 2025, Revision: Desember 2025, Approval: Desember 2025
DOI: 10.17977/um025v10i12025p75

Abstract: The acceleration of digitization in education has driven the need for systems that can effectively and efficiently manage school administration and student monitoring. This study examines the implementation of the School Management Information System (SIMS) pro.jurnale.id as a solution for the digitalization of administration and student monitoring at SMAN 1 Boyolangu. This case study employs a qualitative approach using observation, interviews, and documentation methods to evaluate the main functions of SIMS in supporting administrative processes and monitoring student development. The results indicate that the system is most frequently used in modules such as teacher and student attendance, master data management, curriculum management, and correspondence handled by administrative staff. SIMS facilitates faster data input, increases accuracy, simplifies report generation, and significantly reduces paper usage. Student monitoring has also become more effective through features like real-time attendance, daily assessments, violation records, and parent communication facilitated through homeroom teachers and guidance counselors as intermediaries. However, the study identifies several challenges, including user adaptation difficulties to new technology, network infrastructure limitations, and features that are not yet fully optimized. The researchers recommend enhanced training for teachers and staff, the development of more comprehensive features, and intensive socialization to increase parental engagement in using the system. This study provides important insights into the benefits and obstacles of digitalizing school management, serving as a foundation for developing better educational information systems in the future.
Keyword: Digital School Administration, School Management Information System, Student Monitoring, Integrated School Management, Educational Case Study

Digital transformation in education has become a logical consequence of rapid developments in information technology in the era of the Fourth Industrial Revolution and Society 5.0 (Karakoş, 2024). The biggest challenge facing educational institutions is not only related to online learning, but also concerns the modernization of administrative and managerial processes (Liu et al., 2025). Conventional school administration, such as manual recording of student data, schedule management, and attendance reports, has proven to be time-consuming and prone to errors (Hernandez-Leal, 2021). This problem not only hinders the efficiency of educators and educational staff, but also slows down the flow of information that is important for decision making (Krein & Schiefner-Rohs, 2021). In many public schools, recording and reporting systems are still scattered across physical documents and separate spreadsheets, without cross-

unit data integration(Mazadu, 2022). As a result, monitoring student progress, both academically and non-academically, becomes limited and unresponsive to real-time needs. This creates a gap between the managerial needs of schools and the capabilities of the available administrative systems(Gardezi et al., 2024).

The lack of integration in the administrative system also affects communication between schools and parents, which ideally should be two-way and based on the latest data(Lehmuskallio & Lampinen, 2019). When data on student attendance, grades, behavior, and activities cannot be accessed directly by homeroom teachers or parents, support for student development becomes suboptimal (Alinsunurin, 2020). On the other hand, schools are required to submit reports quickly and accurately to the education office and other supervisory agencies (Kaindaneh et al., 2024). Problems of delays and data discrepancies often arise due to lengthy and unstandardized manual recap processes(Sprunt, 2019). In addition, the administrative burden on teachers also increases, as they have to repeatedly enter data in various formats that are not interconnected (Ismail, 2019). When the administrative burden increases, the time that should be used for the learning process is taken up (Alonzo et al., 2021). Therefore, the need for an integrated system that is capable of responding to this complexity is becoming increasingly apparent (Liu et al., 2025).

The School Management Information System (SIMS) has become one of the solutions that is increasingly being used to overcome these problems (Mazadu et al., 2022). By combining various administrative functions into a single digital platform, SIMS enables efficient data management, automation of routine processes, and real-time access to information (Hernández-Leal et al., 2021). The use of SIMS supports collaboration between educators, administrative staff, parents, and students by providing directly accessible and accurate data (Azeka, 2022). This creates a more responsive, transparent, and data-driven school environment. To clarify the comparison between the manual approach and the digital approach through SIMS, Table 1 below presents the main aspects affected by the use of this technology (Gardezi et al., 2024). The table shows that digital systems have significant advantages in terms of efficiency, accuracy, transparency, and stakeholder engagement (Alinsunurin, 2020). These facts emphasize the shift in demand from conventional systems to structured technology-based systems.

Table 1. Summary of Manual vs. Digital School Administration and Monitoring Issues

Aspect	**ministration and Monitoring**	**Digital Administration and Monitoring (using SIMS)**
Management Process	Performed manually, using separate paper and spreadsheets	Integrated into a single digital system
Time Efficiency	Takes longer due to manual data input and recapitulation	Faster with automated processes and real-time access
Data Accuracy	Prone to input errors and data loss	More accurate data with digital validation and automatic backup
Student Monitoring	Limited to periodic reports, not real-time	Real-time monitoring of student attendance, grades, and behavior
Transparency	Difficult for all parties to access, communication is ineffective	Transparent and accessdible to teachers, staff, parents, and students simultaneously
Decision Making	Slow due to waiting for manual reports	Fast with readily available and analyzable data

Parental Involvement	Minimal, only receives limited information	High, parents can directly access their child's development
Technical Difficulies	Minimal, but prone to loss and physical damage to documents	Requires devices and internet access, user training

Source: Researcher, 2025

The table clearly shows that the digitization of school administration is not merely a matter of technical efficiency, but also involves a transformation of work culture and communication patterns within the education ecosystem. Real-time access to data on student attendance, grades, and behavior is a key factor in increasing parental involvement and supporting early intervention by homeroom teachers and guidance counselors(Huang & Chueh, 2023). When data is integrated, principals and administrators can also make faster, evidence-based decisions. This is in line with the principles of modern education management that emphasize transparency, accountability, and participation. In this context, SIMS functions not only as an administrative tool, but also as the foundation for the formation of a more strategic school management system. Therefore, the use of SIMS can be seen as an effort to strengthen school governance from top to bottom (EL Khaled et al., 2025). However, its implementation requires structural, technical, and cultural readiness, which is not always easy to fulfill (Kaindaneh et al., 2024).

To further explain how SIMS works in the context of school operations, Figure 1 below presents a conceptual diagram of the school management information system that maps the flow of relationships between departments (Hernández-Leal et al., 2021). This diagram shows that SIMS connects master data (students, teachers, educational staff), curriculum management, and student affairs with outputs in the form of attendance, attendance records, and student monitoring reports (Mazadu et al., 2022). The data generated is not only consumed by internal parties such as teachers and principals, but can also be accessed by homeroom teachers and parents (Huang & Chueh, 2023). SIMS enables more accurate and integrated daily monitoring compared to conventional periodic reports. This image also shows that the system is capable of handling teacher attendance management, which is important for performance evaluation and teaching rotation. With a structured workflow, information moves efficiently from the source to the end user without the need for repetitive manual recapitulation. This reinforces the argument that digital systems can reduce workload and improve the quality of educational services.

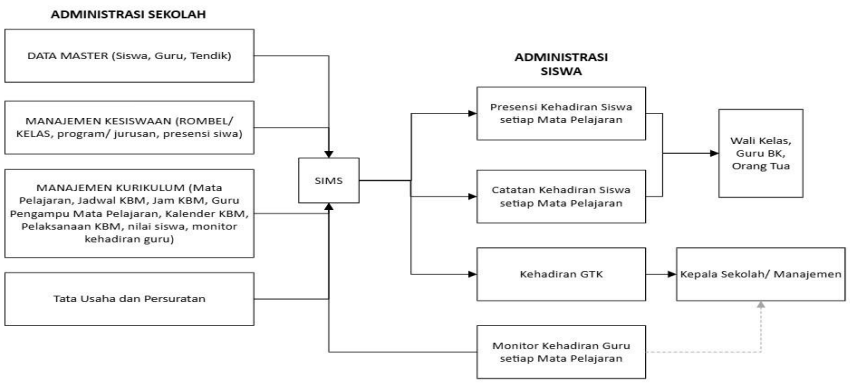

Figure 1. Concept Diagram of the School Management Information System (SIMS)
Source: Researcher, 2025

Although the potential of SIMS has been widely discussed in various studies, most previous studies still focus on system design aspects or initial implementation on a limited scale (Hernández-Leal et al., 2021). These studies generally assess technical effectiveness without further examining the overall implementation dynamics in public schools, which are more complex. Several studies state that the SaaS (Software as a Service) approach tends to accelerate adoption because it does not require large internal infrastructure (Azeka et al., 2022). However, not many studies have discussed the use of ready-made cloud-based systems such as SIMS pro.jurnale.id in the context of public schools as a whole (Mazadu et al., 2022). This condition indicates a gap in the literature in understanding how commercially available systems can be integrated into formal education practices (Liu et al., 2025). Furthermore, there have been no studies that specifically analyze the factors that influence the success or obstacles to implementation from the perspective of school management, teaching staff, and parents (Alonzo et al., 2021). Therefore, direct observation of the comprehensive implementation of SIMS is becoming increasingly important (Karakose et al., 2024).

This study takes the case of SIMS pro.jurnale.id implementation at SMAN 1 Boyolangu as the context for analysis to describe the dynamics of implementing a cloud-based school information management system. The main focus is on how this system supports the digitization of administration and student monitoring simultaneously through a single integrated platform. This study maps the process of integrating academic and non-academic data into the system, as well as how users (teachers, administrative staff, management, and parents) respond to the ease and challenges of use. This research also evaluates the extent to which SIMS is able to replace manual processes without sacrificing the accuracy and completeness of information. Using a case study approach, this research identifies patterns of institutional adaptation to new technologies as well as technical and non-technical barriers to implementation. In addition, this study observes how the data generated by SIMS is used as a basis for decision-making in school operations. This information is important for developing recommendations for other schools considering adopting a similar system.

METHOD

This research method uses a qualitative approach with a case study at SMAN 1 Boyolangu. The research subjects were selected using purposive sampling, consisting of key informants who have a direct role in managing the school management information system (SIMS) pro.jurnale.id. These informants included the vice principal for curriculum and student affairs, administrative staff, guidance counselors, homeroom teachers, and the principal as the policy maker. These subjects were selected based on their active involvement in student administration and monitoring through the implemented system.

Table 2. Research Subject Profile

Type of Informant	number	Role in research	Reasons for selection
Deputy Head of Curriculum (Waka Kurikulum)	1	Managing and monitoring aspects of the curriculum and educational administration	Playing a strategic role in school administration management

Administrative Staff (TU)	2	Managing school administrative and financial data	Directly responsible for data entry and administrative data management
Guidance Counselor (BK)	1	Monitoring student development, especially behavior and guidance needs	Playing a role in monitoring students non-academic activities in prticular
Homeroom Teacher	5	Monitoring class attendance and progress	Playing a direct role in monitoring students at the classroom level
Subject Teacher	7	Managing student learning activities and evaluations	Involved in recording academic performance through SIMS
Parents	10	Monitoring children's development and communicating with schools	Parties who need real-time information about students

Source: Researcher, 2025

The main instrument in this study was the researcher as a data collection tool (human instrument), assisted by several supporting instruments. The supporting instruments used include semi-structured interview guidelines specifically designed to explore the perceptions and experiences of informants regarding the use of SIMS, observation sheets used to record how administrative staff input administrative data and teachers monitor students through the system, and a documentation study that analyzes the features and supporting documents of SIMS pro. jurnale.id such as the attendance interface, grade reporting module, and digital archives.

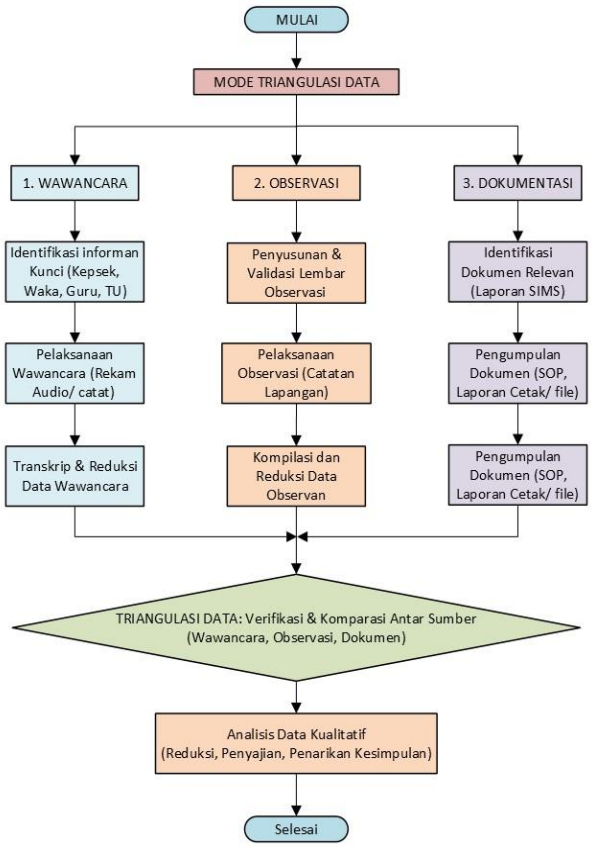

Figure 2. Data Collection Procedure Flowchart
Source: Researcher, 2025

The data collection procedure began with in-depth interviews with all selected informants to obtain data on their perceptions, experiences, and obstacles in operating the system. Next, non-participant observation was conducted to directly observe the process of using SIMS by administrative staff and teachers without intervention. Documentation data was collected as secondary data in the form of administrative reports generated by SIMS, standard operating procedures for system use, and screenshots of important features in the pro.jurnale.id application.

Data analysis was performed using Miles and Huberman's interactive analysis model, which consists of four stages: data collection, data reduction, data presentation, and conclusion drawing. After the data collection stage, the data reduction stage was carried out. In the data reduction stage, information obtained from interviews, observations, and documentation was selected and filtered to focus on the aspects of administrative digitization and student monitoring. In the presentation stage, the reduced data was compiled in the form of descriptive narratives and matrix tables to facilitate understanding. The final stage is drawing conclusions and verification, where conclusions are drawn based on the suitability of the data with the research objectives. Data validity is maintained through triangulation techniques, namely comparing data from interviews, observations, and documentation to ensure consistency and accuracy of findings.

RESULT AND DISCUSSION

RESULT

The results of the study show that the implementation of a three-level attendance system (physical attendance, digital verification through an application, and manual validation) can significantly improve teacher and student attendance control. Teachers use an online journal integrated through the pro.jurnale.id application to record learning activities and student attendance, providing digital evidence that can be accessed by management and parents. The use of physical attendance as a first step ensures direct attendance, while digital verification through the pro.jurnale.id application enables real-time and automatic attendance recording. Manual validation carried out through the monitor.jurnale.id platform by teachers on duty, student representatives in the classroom, and management provides an additional layer of verification to ensure the accuracy and validity of teacher attendance data.

Table 3. Results of Using the 3-Level Attendance System

Level Attendance	Teacher Attendance (%)	Students Attendance (%)	Impact on Efficiency	Impact on Accuracy
Physical Attendance	95	90	Slow and Mnual Process	Prone to recording errors and data loss
Digital Attendance	98	95	Automates and real-time, saving time	Data accuracy improved with initial validation system

Verification Manual	100	98	Conducted digitally via monitor.jurnale.id by relevant partiesn (duty teachers, homeroom teachers, management) for data validation	Ensures attendance data is valid and accurated overall

Source: Researcher, 2025

This system integration enables real-time monitoring of student attendance, making it easier to detect tardiness and absences, which can be immediately followed up by guidance counselors and homeroom teachers. Administrative staff also report that the automated system has made administration easier, reducing data entry errors and increasing work efficiency.

In addition, teachers use an integrated online journal through the pro.jurnale.id application to record learning activities in detail and student attendance. This journal facilitates the documentation of the learning process, which can be accessed transparently by school management and parents. This transparency and ease of data access encourages the active involvement of all parties in monitoring student progress, while also increasing teacher accountability and learning effectiveness.

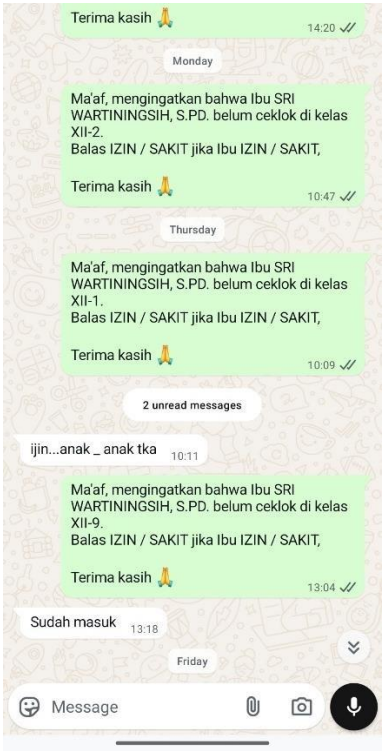

Figure 3. Notification sent to teachers
Source: Researcher, 2025

In order to improve the accuracy and reliability of attendance data, the SIMS pro.jurnale.id system is equipped with a reminder notification feature for teachers. This notification will be automatically sent to teachers who have not checked in after a certain time limit or fifteen (15) minutes from the predetermined teaching and learning schedule (KBM). This feature aims to remind teachers to immediately clock in digitally through the pro.jurnale.id application on their mobile phones, so that attendance data can be recorded accurately and on time. Thus, the attendance verification and validation process does not only rely

on manual processes, but is also supported by an automated system that helps reduce the possibility of errors and delays in recording student and teacher attendance.

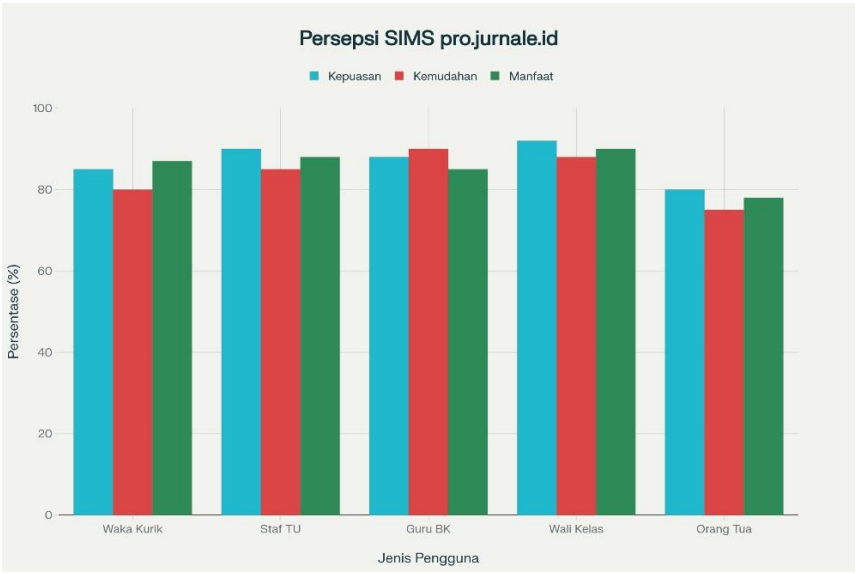

Figure 4. Graph of Usage Rates and User Perceptions
Source: Researcher, 2025

Furthermore, this system optimizes school administrative efficiency by reducing manual workloads and minimizing the risk of recording errors. Centralized data collection and management ensure that every step of student attendance management and monitoring can be detected and followed up in a timely manner, thereby accelerating responses to student issues and supporting improvements in the quality of education at the school.

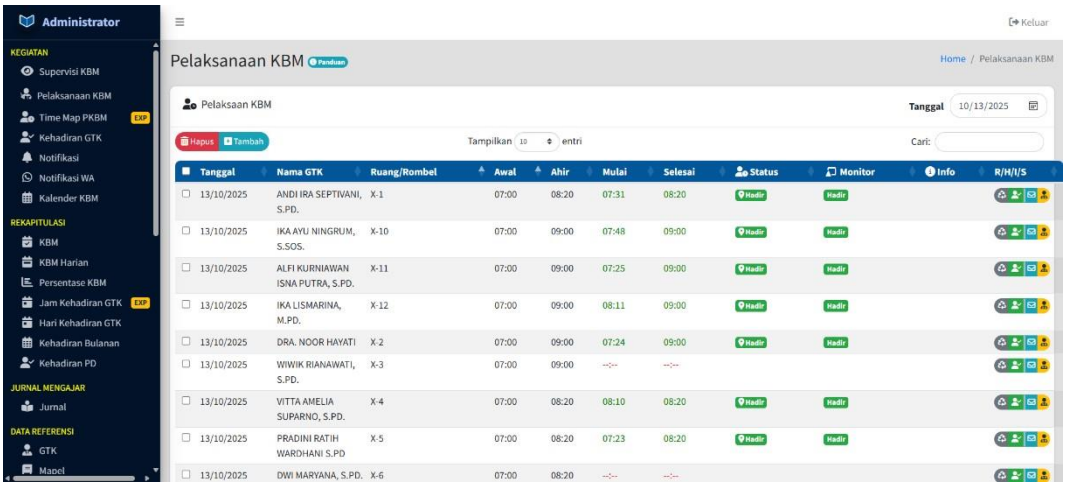

Figure 5. Example of the Main Features of the pro.jurnale.id Application
Source: Researcher, 2025

The following is Table 4.1, Which explains the factors supporting and inhibiting the implementation of SIMS:

Table 4. Factors Supporting and Inhibiting the Implementation of SIMS

Factor	Description	Impact on SIMS Implementation
Technical	Availability of adequate equipment and internet network	Supports smooth system operation
	obstacles such as network disruptions still exist	Hinders consistent access and use of the system
Human Resources	Readiness of staff and teachers to operate SIMS	Increases the effectiveness and utilization of system features
	Need for intensive training and adaptation to digital culture	Becomes an initial obstacle to optimal use
Organizational Culture	Management support and school commitment to digitization	Accelerates the process of system adoption and implementation
	Resistance to change and old habits	Slows down the transition to the new system
Communication and Socialization	Intensity of socialization and good communication with users	Increases user understanding and involvement
	Lack of information and initial socialization	Reduces enthusiasm and use of the system

Source: Researcher, 2025

The analysis of the findings also revealed that positive acceptance and perceptions from various users, ranging from school management, administrative staff, teachers, to parents, played a role in driving the successful implementation. The main supporting factors included ease of access, training support, and continuous monitoring and evaluation of the system's use. Conversely, challenges related to technological infrastructure readiness and cultural and work ethic adaptation still need to be improved.

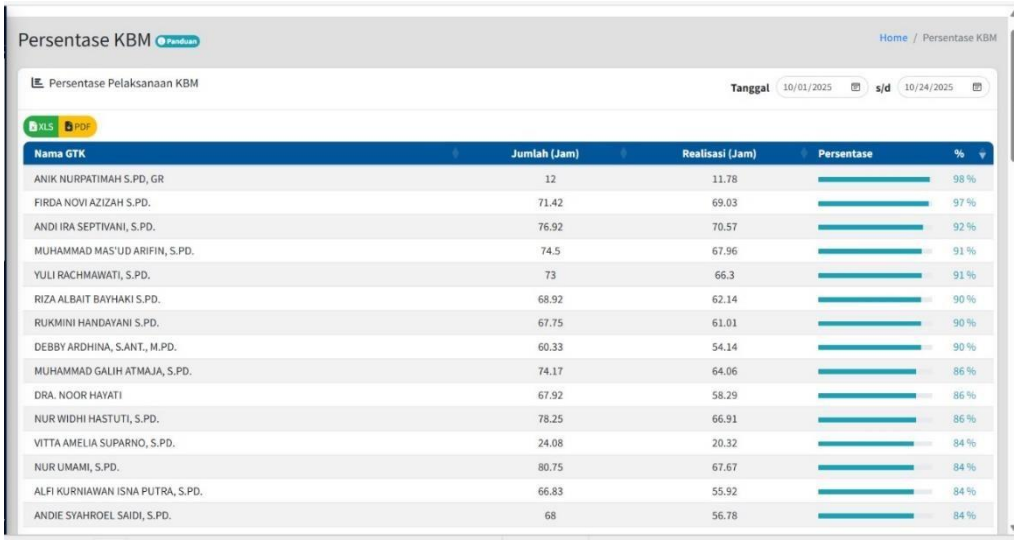

Figure 6. Screenshot of the main features of the pro.jurnale.id application
Source: Researcher, 2025

The use of SIMS at SMAN 1 Boyolangu shows that the most dominant administrative features used include teacher attendance (clocking in when entering the classroom according to the schedule), student master data management, curriculum and schedule management, student attendance, and the process of cross-checking teacher attendance with the teacher on duty and student representatives in the classroom. According to interviews with administrative staff and the Deputy Head of Curriculum, the use of this system has enabled faster data input, increased data accuracy, ease of report generation, and a significant reduction in paper use.

However, there are a number of challenges, such as adaptation issues among staff and teachers, internet network disruptions, some features that are not yet fully optimized, and issues related to teachers who clock in without actually being present in class or changes to the learning schedule without coordination with the Deputy Head of Curriculum, which also need serious attention (Kusuma & Santoso, 2023). The Principal and Vice Principal of the Curriculum assessed that despite the challenges, this system greatly helps improve the efficiency of school administration management. A phenomenon also found by Hidayat (2021) is that the success of information system implementation is highly dependent on human resource support and management.

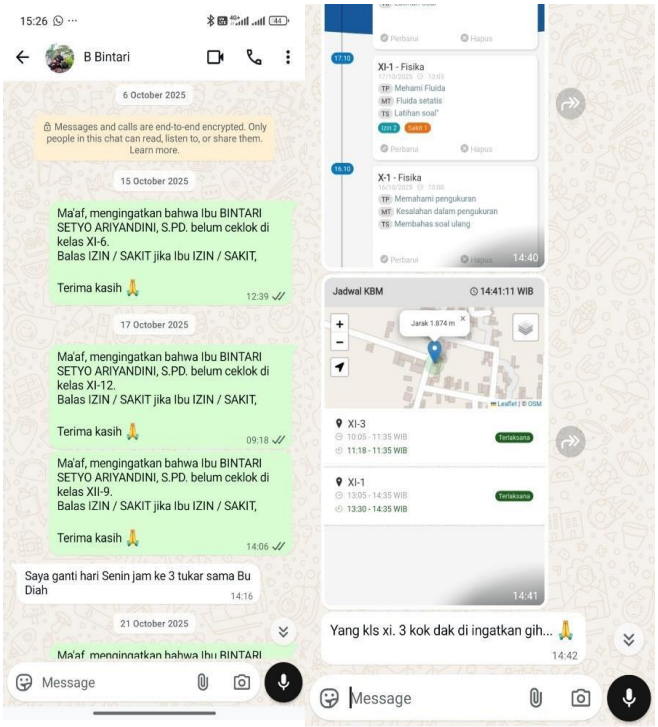

Figure 7. Server screenshoot with various responses from WA notification
Source: Researcher, 2025

Thus, this study confirms that SIMS pro.jurnale.id is not only an administrative tool, but also a strategic platform that connects all elements of education to achieve more responsive, transparent, and data-driven school management. The implementation of SIMS pro.jurnale.id at SMAN 1 Boyolangu not only digitizes administrative processes and student monitoring, but also enables simultaneous data integration between various educational management functions. Through the digital attendance and three-level attendance validation features, the school is able to track attendance accurately and in real time, as well as

reduce manual errors and data input delays. The leverage of clocking reminders for teachers provides better time discipline and ensures that data is always complete according to the teaching and learning schedule.

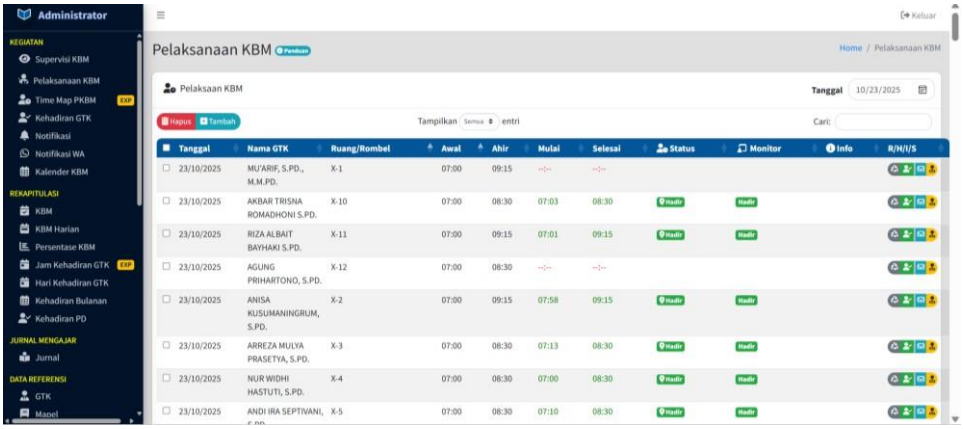

Figure 8. Screenshot of KBM Implementation from Three Account Levels
Source: Researcher, 2025

DISCUSSION

The implementation of a three-level attendance system at SMAN 1 Boyolangu shows effectiveness in strengthening attendance control for teachers and students, in line with the trend of using automated attendance technology and education information systems to improve accountability (Lin, 2022); (Tsai, 2023). The teacher attendance module with check-ins according to schedule, student data management, curriculum management, and correspondence features reflects the digitalization of processes that have so far been manual and repetitive, as shown in the development of web-based EMIS/SIS to improve administrative efficiency (Badru, 2022);(Mazadu, 2022). Significant changes are seen in the efficiency of data input processes and the increased accuracy of reports, which are commonly reported in the implementation of integrated information systems in educational institutions (El Mazbouh, 2025). Administrative staff and the Vice Principal for Curriculum reported reduced paper use and ease of digital archiving, consistent with the benefits of school administration digitalization that reduces redundancy and improves data quality. This is in line with the findings of Akçapınar (2019) who emphasized that management information systems accelerate administrative processes and improve data accuracy. Consistency with modern educational management theory is also evident, where fast and accurate information supports more responsive decision-making, especially when data are centrally available and traceable. This system addresses the school's need for an integrated platform that can unify administrative processes across units.

The three-level attendance feature in SIMS becomes a significant innovation in ensuring the accuracy of teacher and student attendance. Physical attendance provides direct evidence, digital attendance records attendance automatically, and manual verification adds validation control by a third party; this multi-layer design aligns with the principle of improving reliability through verification and preventing manipulation in technology-based attendance systems (Rukhiran, 2023). This model reflects the principle of dual validity in educational audit systems, as suggested by Rizkia & Rahmawati (2021) who emphasize the need for multi-actor attendance supervision. The combination of these three levels prevents data manipulation while

strengthening time discipline in the school environment, which is also a concern in various sensor/biometric-based attendance systems in educational settings (Bogicevic Sretenovic, 2020). The check-in notification feature for teachers has also proven effective in shaping consistent attendance behavior, especially when the system is able to provide immediate feedback. When teachers do not record attendance within a certain time limit, the system provides automatic reminders that speed up follow-up, in line with the concept of "real-time monitoring" in smart classroom/smart campus ecosystems (Zhang et al., 2022); (Omotayo, 2021). This integration creates an attendance system that is responsive and adaptive to the dynamics of teaching and learning activities.

The use of online journals as part of learning documentation strengthens teachers' accountability for implementing teaching and learning activities. Teachers record classroom activities in detail, which can then be accessed by management and parents; openness and data access through digital platforms are also considered important to improve transparency in learning processes and monitoring. This model adopts the principle of openness in evidence-based learning systems as recommended by (Akçapınar, 2019). This transparency not only increases trust among stakeholders, but also enables continuous evaluation of the learning process, especially when data can be summarized and displayed through analytics/dashboard mechanisms. Parents gain access to their children's progress without having to wait for periodic reports; this is consistent with findings that digital communication platforms can strengthen home–school connectedness when used systematically. This strengthens home–school collaboration, which according to Jones (2023) is key to the success of digital education, and is also consistent with studies on parent engagement and forms of parent–teacher collaboration. Online journals are not merely administrative records, but collaborative tools that support reflection and evaluation of learning (Ovati, 2024).

Work efficiency among school administrative staff has increased thanks to digital processes that cut time and reduce redundancy in record-keeping. Data input is no longer carried out repeatedly across various spreadsheets, but only once through an integrated platform; this aligns with the benefits of student information systems that reduce duplicated work and improve management effectiveness (Mazadu, 2022; Badru, 2022). These benefits reflect the effectiveness of information systems in reducing administrative workload as conveyed by Nugroho (2019). In addition to time efficiency, data accuracy has also improved because the system has internal validation, as emphasized in EMIS studies that underline the role of data quality and standardization (El Mazbouh, 2025). Reduced paper use supports the school's environmentally friendly policy and operational budget efficiency. The transition from manual to digital processes accelerates report processing and decision-making, especially when data are integrated and can be monitored quickly (Akçapınar, 2019). When administrative processes run smoothly, educators can focus more on improving teaching quality (Mazadu, 2022).

On the student monitoring side, features such as attendance, assessment, violation records, and communication with parents become comprehensive control tools. Teachers and homeroom teachers can monitor students in real time and respond more quickly to cases of absenteeism, declining grades, or discipline issues; such an approach aligns with the use of learning analytics for early detection of at-risk

students (Akçapınar, 2019). This system supports early detection of student problems that has previously been hampered by limitations of manual reports (Akçapınar, 2019; El Mazbouh, 2025). This is in line with the idea of data-driven educational management that emphasizes timely intervention as a means of improving the quality of student services (Sari, 2022). Parents are also involved in monitoring, although still through an indirect channel, namely via homeroom teachers or guidance and counseling teachers; the literature shows that forms of parental involvement can vary and are influenced by school policies and communication readiness (Jones, 2023; Ovati, 2024). This involvement is sufficiently effective for now, considering that not all parents are accustomed to digital systems, so the use of digital platforms needs to be accompanied by adoption strategies (Proff, 2025). The presence of guidance and counseling teachers and homeroom teachers as intermediaries helps maintain two-way communication continuity.

Although most features have been utilized, not all users—especially parents and some teachers—have maximized access to the SIMS platform. The level of digital literacy and familiarity with technology becomes a challenge that must be addressed through training and mentoring approaches; research on the acceptance of biometric/attendance technology emphasizes the role of user acceptance factors in the success of implementation (Rukhiran, 2023). A special menu for parents is actually already available in the system, but it has not been fully activated as the main communication channel. Most parents still rely on teachers and homeroom teachers as the primary sources of information regarding student progress, which also emerges in studies on the conceptualization of parental engagement and collaboration practices (Jones, 2023; Ovati, 2024). This strategy is sufficiently effective as a transitional step toward a more digital system, but direct involvement still needs to be improved. Further socialization as well as simplifying the interface for non-technical users are important so that parental participation increases. Even digital literacy will strengthen the overall success of the system (El Mazbouh, 2025; Rukhiran, 2023).

School management feels the direct benefits of a system that can provide centralized and real-time data for decision-making purposes. Attendance data, teacher performance, and student progress are systematically available in one easily accessible dashboard; smart campus/smart classroom systems show how sensors, AI, and data integration support more adaptive monitoring and management (Zhang, 2024; Omotayo, 2021). This information becomes the basis for report preparation, policy-making, and evaluation of school programs, especially when the system is able to present data that are ready for analysis (Akçapınar, 2019). According to Hidayat (2021), the success of utilizing management information systems is strongly influenced by organizational readiness to make data a strategic tool. SIMS pro.jurnale.id has proven to help strengthen the capacity of school management to implement adaptive and data-driven governance, in line with EMIS literature on data utilization and system governance (El Mazbouh, 2025). Schools no longer depend on slow written reports that are potentially biased, but on actual data that are available at any time (Akçapınar, 2019). This system creates a model of modern educational management that is dynamic and quality-oriented

However, several challenges still need to be addressed so that the implementation of SIMS can run optimally at all levels of users. Hardware constraints, internet network stability, and user readiness are important issues that must be handled systemically; the smart campus context and the application of technology in educational ecosystems also emphasize the importance of infrastructure readiness and device integration (Omotayo, 2021; Aldelaimi, 2020). Intensive training and periodic mentoring are needed to develop a strong digital work culture, because user acceptance and organizational readiness greatly determine the sustainability of system use. Without ready human resources, technology risks becoming a new burden rather than a solution. These challenges echo findings from previous studies that digital transformation in education requires a multidimensional approach, covering technology, people, and work culture, including aspects of smart learning space design and the use of supporting technologies(Cebrián, 2020); (Hernández-Mustieles, 2024). With infrastructure improvements and active user engagement, SIMS pro.jurnale.id has the potential to become a national model for the digitalization of school management (Badru, 2022). This model paves the way for more equitable quality of educational services in the digital era, which demands rapid responses and high accuracy.

CONCLUSION AND SUGGESTION

CONCLUSION

This study proves that the implementation of the pro.jurnale.id School Management Information System (SIMS) has significantly digitized student administration and monitoring at SMAN 1 Boyolangu, in line with the proposed hypothesis. This system not only speeds up administrative processes through features such as digital attendance and integrated data management, but also improves data accuracy and information transparency for all stakeholders, although direct access for parents through the digital platform still requires further development. The research findings show that the main benefits include efficiency in data input, ease of report generation, real-time attendance monitoring, and better communication between the school and parents through homeroom teachers and guidance counselors as intermediaries. However, the challenges of adapting to a digital work culture, technological infrastructure constraints, and active user engagement are factors that must be considered to optimize the use of this system. Therefore, future recommendations include the need for improved training for teachers and staff, the development of more comprehensive features, and continuous socialization and assistance strategies, especially for parents, so that they can actively participate in monitoring their children's education. Further research is expected to explore aspects of data security, the long-term impact of digitization on the quality of education, and the evaluation of SIMS use at various levels of education and in different socio-cultural contexts.

SUGGESTION

For further research, it is recommended to develop a broader and more in-depth study scope, including technical aspects such as data security and privacy protection in school management information systems. Further studies can also explore the response to and use of SIMS at various levels of education

and different socio-cultural backgrounds to obtain a more comprehensive and representative picture. In addition, future research is expected to assess the long-term impact of administrative digitization on student academic performance and the effectiveness of parental involvement through digital features, which have not been optimally utilized in this study. It is also important to further examine the factors that influence user adaptation, including psychological, technical, and organizational barriers that require strategic and innovative solutions. Thus, the results of further research can make a significant contribution to the development of a holistic, adaptive school management information system that has a greater impact on improving the overall quality of education.

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