



## The Role of Management Information Systems in Improving Performance (Study at SMP Negeri 2 Ampa Tete)

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### ABSTRACT

This study aims to describe the role of management information systems in improving school performance from the aspects of transparency and accountability at SMP Negeri 2 Ampa Tete. The method used is a qualitative method with a descriptive approach, the technique of collecting data through direct interviews. The results showed that SIM is very important to speed up and facilitate access to information, enable more systematic reporting, and improve supervision and evaluation of academic and administrative performance. To address these issues, a broad approach is needed, including increased technology training, effective change management, and the creation of strong data security protocols. This study shows how important SIM is to support transparency and accountability at SMP Negeri 2 Ampa Tete school. In addition, it also provides suggestions on how to implement it better.

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## INTRODUCTION

The ever-growing digital era characterized by the transformation of information technology has become a major requirement in the world of education to improve school performance from the aspect of quality and efficiency of school management. Performance is the result of work that can be achieved by an individual or group of individuals in an organization in accordance with their respective authorities and responsibilities in an effort to achieve organizational goals legally, morally, and ethically (Tondowala et al., 2025) . The performance of educators (teachers) can be defined as the extent to which a teacher works optimally according to his abilities in an effort to achieve institutional goals (Adnan et al., 2024) . Human resources in schools must be able to use or adopt technology in the school management process, especially in planning and evaluating learning, so that they can achieve educational goals most effectively (Sihotang, 2025) . School Management Information System (SIMS) is a strategic solution that enables structured, real-time data and information management, and facilitates data-driven decision making.

Management Information System (MIS) is a technological innovation that must be adopted by human resources in the world of education which aims to facilitate the management of administrative and academic aspects of schools in a digital and integrated manner. SIM allows the systematic collection, storage and processing of various important data, including teacher data, lesson schedules and learning evaluation results (Sumbaryani et al., 2023) . This allows access to information to be faster, easier and more accurate, which helps school management make better and more efficient decisions. By implementing SIMS, administration becomes more productive and education management becomes clearer and more monitorable. Ultimately, this results in better education services.

The role of SIM in schools aims to improve school performance from the aspects of quality, work efficiency and can increase transparency and accountability. Various aspects of information management, such as financial administration, human resource management, and learning activities, are expected to be facilitated in one better SIM management. Thus, the School SIM helps to increase public trust in school performance. Thus, the school has good credibility in the eyes of the community.

The world of education must continue to adapt to technology in the rapidly growing digital era to improve performance in terms of quality and efficiency of school management. The existence of the Education Management Information System (SIM) is one form of technological adaptation. Education SIM is a technology-based system used to manage and store digital information about all school activities, both academic and non-academic (Sumbaryani et al., 2023).

The support of school human resources is very important in the implementation of SIM at school. Many innovations can be made to strengthen management information systems along with technological advances and adequate HR support. The ability of school human resources to adopt innovations in the use of technology is an important solution to improve school performance today. Management information systems can be used not only to meet the needs of schools but also to interact with the community in providing academic services, communicating, and disseminating information, as well as to ensure that school management runs better (Yanti et al., 2024).

Previous studies have shown that management information systems (MIS) can improve the decision-making process. By monitoring learning outcomes, student attendance, and the effectiveness of school program implementation in real-time, educators can make faster and more informed decisions (Pahlawi & Maulidina, 2024). In addition, SIM implementation can improve the transparency and accountability of school data management by enabling more effective evaluation and feedback processes.

In today's internet era, transparency and accountability are two important components in the management of a professional and trustworthy educational institution. If these two principles are not applied, it can lead to many serious problems, such as misuse of funds, stakeholder dissatisfaction and a decline in the quality of education. Values that promote honesty, responsibility and openness emphasize their importance. The solutions provided by SIM help educational institutions overcome these problems. Any data related to the operation and management of the organization can be easily accessed and audited with SIM. This not only improves administrative efficiency but also ensures that accurate and accountable data is used to make decisions.

Since 2006, SMP Negeri 2 Ampana Tete has implemented the Education Management Information System (SIM). SIM is an essential tool to assist administration and improve accountability, transparency and the overall quality of education services. Schools often use applications such as Dapodik and ARKAS to manage data, create reports and track their performance. Infrastructure Information System (SI) is one of the most difficult school information systems to maximize in its application. Schools already use the Basic Education Data (Dapodik) application, which is provided by the Ministry of Education and Culture. This application has been fully loaded for infrastructure features, including the choice of facilities in accordance with the standards (Amalia et al., 2025).

This study chose SMP Negeri 2 Ampana Tete as its subject based on strong academic and contextual considerations, because the school has been using Management Information System (SIM) since 2006, but still faces several challenges to optimize it. SMP Negeri 2 Ampana Tete faces real challenges in implementing information technology in the educational environment because it is located in a non-urban area and lacks human resources and infrastructure. Identifying the contribution of SIM to improving the transparency and accountability of school management and identifying the inhibiting factors that affect the effectiveness of its implementation are the main objectives of this study. Therefore, it is expected that this research can make theoretical and practical contributions to establish methods to improve the performance of IT-based educational institutions in developing regions.

The SIM implementation experience at SMP Negeri 2 Ampana Tete shows that the use of information technology in education is important not only in large or urban schools, but also in schools in developing areas. Therefore, it is important to understand how an Education SIM can help school management become more efficient and the problems that arise during its implementation.

Especially at the junior high school level such as SMP Negeri 2 Ampana Tete, this SIM implementation problem is very important to be resolved. Management Information System (MIS) is a strategic step towards a transparent and accountable school governance system. SIM allows decision-making, financial reporting, and administration to be done more openly and systematically. This not only improves the efficiency of school operations but also increases accountability in the overall management of education.

Although SIM has many benefits, SMP Negeri 2 Ampana Tete still faces several obstacles. Many school administrators do not have the necessary understanding or skills to optimally operate the SIM system. The main barriers in optimizing SIM utilization include lack of technological knowledge, limited infrastructure and human resources, and fear of change. In addition, SIM adoption requires investment in the procurement of software, hardware, and training of teachers and instructors. This is often a big problem for educational

institutions that have limited budgets. Therefore, the implementation of SIM in schools largely depends on the readiness of human resources, the availability of adequate infrastructure, and the commitment of all relevant parties to adapt and innovate in the use of educational technology.

Transparency in education means providing open access to important information to all interested parties, such as students, parents and the general public. SIMS supports transparency by enabling easy and real-time access to important data, such as financial reports and academic results, which facilitates monitoring and evaluation by stakeholders. This is especially important in educational institutions that prioritize accountability and clarity in education management (Azrafiandi & Agustin, 2023).

This study aims to determine how much the school's Management Information System (SIM) contributes to increasing transparency and accountability at SMP Negeri 2 Ampa Tete. In addition, this study aims to identify various obstacles faced in the implementation of SIM and make strategic suggestions that can help schools overcome these obstacles and optimize their utilization.

## **Literature Review**

### **Management Information System**

Management Information System is a combination of Human Resources and information technology applications to select, store, process and retrieve data in order to support the decision-making process of a company (Rochaety, 2017). Management information systems are part of management science. All management functions, be it planning, organizing, leading/actuating, and controlling, are needed for the success of activities in an organization, including in the organization of educational institutions (Sonia, 2020). Management Information System (MIS) is a set of procedures, methods, and technologies used to collect, process, store, and communicate relevant information to decision makers in an organization. Management Information Systems (MIS) cover several aspects, ranging from transaction processing systems to more complex decision support systems (Kurniawan Ritonga & Firdaus, 2024). Management information systems are distinguished from ordinary information systems because SIM is used to analyze other information systems that are applied to the operational activities of the organization. academically, the term information group for this method refers generally to management that is concerned with the automation or support of human decision making, for example decision support systems, expert systems, and executive information systems (Hariyanto, 2018).

### **The Role of Management Information Systems**

The role of Management Information Systems in the digital era is very important. In a rapidly developing and changing world, companies that successfully adapt information technology can gain a significant competitive advantage. Information systems allow companies to keep up with technological developments, optimize business processes, and serve customers better (Kurniawan Ritonga & Firdaus, 2024). Therefore, management information systems (MIS) are an important part of a company's business processes and information management. Businesses can achieve their goals more efficiently, optimize performance, and understand the concepts and advantages of management information systems. Therefore, investment in the development and implementation of SIM is a strategic move for the progress and success of the company.

### **Benefits of Management Information Systems**

The use of management information systems has many benefits for decision making. Which affects management and the organization as a whole (Kurniawan Ritonga & Firdaus, 2024). If the organization can manage the management information system regularly, the organization will get various benefits because of the SIM itself (Anisa Puspita & Muhammad Irwan Padli Nasution, 2023).

### **Performance**

Performance is a form of work results with what has been done which is shown through appearance, actions and work achievements based on the knowledge, skills, values and attitudes possessed by individuals (Muspawi, 2021). Employee performance is the result of work both quality and quantity achieved by employees in carrying out their duties in accordance with their respective responsibilities in a job to achieve organizational goals together (Mhail, 2024). Teacher performance is the most important thing in education, considering that teachers are the front guard for a nation to shape character and improve the quality of resources in the future (Kartiko et al., 2023).

## **METHODOLOGY**

This research uses a descriptive qualitative approach that aims to describe in depth the role of the Management Information System (SIM) in increasing transparency and accountability at SMP Negeri 2 Ampa Tete. This approach was chosen so that researchers could contextually understand the SIM implementation process as well as the benefits and obstacles experienced in practice. The research was conducted at SMP Negeri 2 Ampa Tete by involving the principal, teachers, administrative staff, and related

parties who play a direct role in the use of SIM. Data collection techniques were carried out through interviews and direct observation to find out the understanding, experience, and perceptions of respondents in the context of SIM in school management of SMP Negeri 2 Ampa Tete.

## RESULTS

The results showed that the implementation of Management Information System (SIM) in SMP Negeri 2 Ampa Tete has improved school performance, especially in terms of data management, finance, and learning activities. The Dapodik application, or Basic Education Data, is actively used to support the data collection of students, teachers and facilities which become the basis for policy making at the school and education office levels. The use of this application allows school data to be updated in real-time and accurately, which speeds up the process of reporting and disseminating educational assistance from the government. SMP Negeri 2 Ampa Tete has used the Education SIM extensively and continuously in all school operations. The frequency of use differs according to the time required: 1) The SIM is used daily to manage student, teacher and school administration data. The system updates all data instantly, so all information remains current and accurate. 2) The system is used weekly to track students' academic performance, manage attendance and conduct weekly evaluations, which are the basis for learning improvement. 3) Monthly reports relating to teacher and student performance are generated every month based on data collected from the SIM. These reports are also used as materials for school working meetings. 4) On an annual basis, the system helps evaluate school programs, budget reports and student learning achievements.

### Challenges in Implementing an Education SIM

Although it provides many benefits, the implementation of SIM at SMP Negeri 2 Ampa Tete also faces various challenges that are quite complex, among others:

#### Human Resources

The lack of ability of teachers and staff in the use of technology leads to the need for intensive and continuous training.

#### Technology Infrastructure

The main obstacles are limited hardware such as computers and unstable internet networks.

#### Cost and Maintenance

System development and maintenance require funds and specialized experts, which are not always available in local schools.

#### Change in Work Culture

Many educators still experience difficulties or discomfort when switching from manual to digital systems.

In SMP Negeri 2 Ampa Tete, the Education Management Information System (EMIS) shows great potential to improve teacher performance in school governance, although there are still some challenges to be resolved during the implementation process. Issues such as limited technological infrastructure, lack of teacher training and resistance to change need to be strategically addressed. These barriers can be avoided with careful planning, provision of adequate resources and the right change management approach.

## RESULT AND DISCUSSION

Based on the results of interviews we conducted at SMP Negeri 2 Ampa Tete, it shows that the Education Management Information System (SIM) has many benefits for schools. One of the main benefits is the increased transparency in the management of school data and information. By having a SIM, interested parties can easily access data such as finance, student attendance, grades and school inventory. This facilitates data-based reporting and decision-making and reduces the possibility of errors and misuse of data.

Transparency is realized through easy access to important information such as student data, grades, attendance, class schedules, and school financial reports. This information can be accessed by relevant parties, including teachers, students, parents and the education office. With accurate and real-time data presentation, every party can get a clear picture of the school's condition and performance without having to go through a complicated or closed process. In addition, announcements, schedules and various school policies can be delivered quickly and on target through the available digital system.

SIM is also very important to improve school accountability. Every administrative activity is systematically documented. This allows teachers, administrative staff and school management to be accountable for each step of their work in a more structured and clear manner. The use of SIM accelerates communication between schools and parents as well as the education office and improves the monitoring and evaluation process. Therefore, the implementation of SIM at SMP Negeri 2 Ampa Tete improves work efficiency and creates a more professional and responsible working environment.

SIM provides strong support in reporting and accountability of school activities. This system makes it easier for schools to prepare financial reports, evaluate teacher and student performance, and monitor the use of school funds and assets. Every financial transaction and operational activity can be recorded and traced properly, thus preventing irregularities or misuse. With data stored in a systematic and structured manner,

schools can more easily make plans, make strategic decisions, and evaluate the programs that have been carried out.

The existence of Dapodik and ARKAS has brought about major changes in the way schools manage data and finances. Both are not only designed to facilitate the input of information, but also serve as important tools in realizing transparent and accountable governance. Through the Dapodik system, important data such as the number of students, teachers, facilities and various school programs can be collected centrally and directly connected to the national system. With this system, any information updates can be monitored directly, minimizing the risk of data errors or manipulation.

Meanwhile, ARKAS is here to assist schools in designing and reporting budgets in a more organized and targeted manner. Every spending plan, use of funds, and expense report is digitally recorded and automatically recorded in the system. This makes the reporting process much more efficient and open, as parties such as the school committee, education office, or parents can directly see the details of budget usage if needed. Not only that, the system also speeds up the process of disbursing funds and facilitates audits because all documents are available in digital format.

Overall, the implementation of Dapodik and ARKAS not only makes administrative work easier but also creates a more honest and responsible climate for school management. With an organized and open system, trust from the community and stakeholders will grow. Schools can focus more on improving the quality of learning, without being preoccupied with time-consuming bureaucratic matters.

## CONCLUSION

This study confirms that the education Management Information System (SIM) has a very important role in increasing transparency and accountability at SMP Negeri 2 Ampana Tete. SIM provides various benefits, including increased transparency in data management, younger and faster access to information and makes it easier for schools to organize and document activities systematically. However, SIM implementation also faces various challenges such as limited resources, technological infrastructure, costs and maintenance as well as changes in work culture. To overcome these challenges and ensure successful implementation, a comprehensive strategy is needed including increased technology training for educators, effective change management to build a digital work culture and the development of strong data security protocols to protect school information. With these measures, the SIM can be implemented optimally and sustainably, while promoting transparency, accountability and quality of education.

## RECOMMENDATION

Based on the research results, several strategic recommendations are proposed to help SMP Negeri 2 Ampana Tete overcome the obstacles in implementing SIM and maximize its benefits. The first step that needs to be done is comprehensive planning. Schools should identify basic needs such as technology infrastructure, human resource readiness, and short-term and long-term goals of using SIM. The provision of hardware and software, a stable internet network, and an information security system are key prerequisites in supporting the success of this system.

In addition to technical readiness, the human resource factor also plays a crucial role. Teachers, education personnel and school management must be provided with adequate technical training related to the use of SIM. This training should not only be technical-operational in nature but should also include an understanding of the importance of the system in improving educational performance and services. Commitment from school leaders is needed to mobilize all elements in the school environment to adapt to this change. Support in the form of internal policies, budget provision, and implementation monitoring are important parts of the change management process that must be designed systematically.

The next strategy is the implementation of regular evaluation and supervision. Evaluation aims to assess the effectiveness of the system that has been implemented and identify obstacles that arise in the field. By conducting regular evaluations, schools can make necessary improvements and adapt the system to evolving needs. In addition, it is important for schools to establish partnerships with external parties such as the education office, information technology service providers and training institutions. These partnerships will strengthen the school's capacity in terms of technical support, system development and continuous improvement of SIM users' competencies. With the right strategy, SIM implementation will not only be an administrative tool but also a key driver in improving the quality of education in schools.

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