



## The Benefits of Management Information Systems (MIS) in Increasing the Effectiveness of School Management

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### ABSTRACT

This study aims to examine the effectiveness of implementing a Management Information System (MIS) in schools in improving the effectiveness of administrative, academic, and decision-making processes. The research method used a qualitative descriptive approach through observations and interviews with principals, administrative staff, and teachers in several secondary schools. The results indicate that MIS provides significant benefits in accelerating information flow, improving data accuracy, and supporting transparency in school management. However, the success of MIS implementation also depends on the readiness of human resources and adequate technological infrastructure.

## **INTRODUCTION**

In the rapidly evolving digital era, the education sector is required to continuously innovate in order to improve the quality of services and the effectiveness of school management. One form of innovation that has now become an urgent necessity is the implementation of a Management Information System (MIS). MIS in a school environment functions as a tool to systematically manage data and information, including student administration, finance, human resources, class schedules, and reporting on the performance of teachers and the institution as a whole.

Digital transformation in the education sector has brought significant changes in the way schools manage information. A Management Information System (MIS) is a technological solution designed to help schools manage data and information efficiently and in a structured manner. The implementation of MIS in schools includes the management of student data, teacher data, financial records, curriculum, and learning evaluation. This article discusses the usefulness of MIS in supporting both managerial and operational performance of schools.

One of the common problems encountered in schools—especially at the primary and secondary education levels—is the suboptimal management of data and information. Manual record-keeping, lack of integration between departments, and frequent data input errors hinder timely and accurate decision-making. This results in slow responses to emerging issues, lack of transparency, and reduced efficiency among administrative staff and school leaders.

The implementation of MIS is believed to be a solution to these problems. Through a computerized system, information can be accessed in real-time, is more accurate, and supports planning and decision-making based on data. However, the success of MIS implementation is not solely determined by the availability of software and hardware but also by human resource readiness, organizational culture, and policy support from relevant stakeholders.

Based on this, it is necessary to examine how beneficial MIS is in improving the effectiveness of school management, as well as the factors that influence the optimization of its use. A deep understanding of the benefits of MIS is expected to encourage schools to become more adaptive to technological advancements in realizing more professional and high-quality educational governance.

## **LITERATURE REVIEW**

### **Management Information System (MIS)**

The rapid development of information technology has had a significant impact on various areas of life, including the field of education. One form of technology utilization that has become a primary need in modern organizations is the Management Information System (MIS). MIS is a combination of technology, procedures, and human resources that functions to collect, process, store, and distribute information to support decision-making processes and organizational management effectively and efficiently.

In the context of education, MIS serves as a strategic tool to support more structured and data-driven school management. Data management, which was previously done manually, can now be automated through an integrated digital system that covers academic, financial, human resource, and student services aspects. Therefore, MIS is not only a technical support tool but also an important instrument in shaping modern, transparent, and accountable educational governance.

According to Laudon and Laudon (2020), a Management Information System (MIS) is a computer-based system that provides information to support operations, management, and decision-making functions in an organization. In the school context, MIS is used to manage student data, teacher records, curriculum, and finances in an integrated manner.

According to Laudon & Laudon (2020), MIS is a computerized system that manages data and information to support managerial functions in an organization. In schools, MIS assists in administrative processes, internal communication, and data-based decision-making (Haryono, 2022). This technology also supports the principles of efficiency and accountability in educational management.

Based on the explanation above, it can be concluded that a Management Information System (MIS) is an essential component in supporting the effectiveness and efficiency of organizational management, including in educational institutions. MIS allows schools to manage various managerial aspects in a structured way, from administrative, academic, and financial data to human resource records. With MIS, decision-making can be carried out more quickly and accurately, as it is supported by valid and real-time data.

### **Educational Management**

Education is a key pillar in national development, and its success is greatly influenced by how the management processes within it are carried out. In this context, educational management plays a central role as a systematic approach to planning, organizing, implementing, and evaluating various educational activities to achieve goals effectively and efficiently. Educational management does not only focus on administrative aspects but also encompasses leadership, strategic planning, resource management, and the improvement of teaching and learning quality.

Along with the increasing demands for quality education in today's global and digital era, educational management is required to be more adaptive, innovative, and data-driven. The right managerial approach can help schools respond to educational challenges more professionally and accountably. Therefore, a comprehensive understanding of the principles and practices of educational management is essential for all stakeholders in the education sector, both at the school level and within national policy frameworks.

Mulyasa (2019) stated that effective educational management requires an information system capable of providing data quickly, precisely, and accurately. In this regard, MIS becomes an essential tool in supporting the functions of planning, organizing, implementing, and monitoring within the school environment.

According to Nugraha et al. (2023), educational management can be simplified as the science and art of managing and utilizing resources (both human and non-human) systematically, using management principles and functions to achieve effective and efficient education.

From the expert opinions mentioned above, it can be concluded that modern educational management emphasizes the integrated and coordinated management and utilization of both human and physical resources to achieve educational goals with high levels of effectiveness, efficiency, and quality.

### **Utilization of Information Technology in Education**

The development of information technology has brought significant changes in various aspects of life, including education. In today's digital era, education no longer relies solely on conventional methods such as face-to-face learning and textbook-based instruction. Instead, information technology has opened the door to more dynamic, flexible, and efficient learning processes and educational management. The presence of technologies such as the internet, computers, educational software, and management information systems has transformed the way teachers teach, students learn, and schools operate.

According to Al-Bahussain et al. (2021), the utilization of information technology in education management can improve the efficiency and accuracy of administrative work, speed up information distribution, and enhance accountability and transparency in decision-making. A well-implemented information system allows education management to run more optimally.

The use of information technology in education brings numerous benefits, including accelerating access to information, expanding learning reach, enhancing collaboration between teachers and students, and supporting more accurate and data-driven evaluation processes. Furthermore, information technology serves as a strategic tool in planning and decision-making within educational institutions through integrated school management information systems. Therefore, the integration of information technology into education is no longer a mere option but an urgent necessity to meet current challenges and sustainably improve educational quality.

According to a literature review by Lutfi Ana, Muhammad Alie Muzzaki, and their team (2023), the use of Information and Communication Technology (ICT) in primary education is essential to help teachers integrate technology-based learning. ICT utilization enables the presentation of learning materials in a more concrete and contextual manner in accordance with student development

characteristics, thus improving the quality and effectiveness of teaching and learning processes.

UNESCO states that Information and Communication Technology (ICT) in education can enhance universal access to education, create more equitable learning systems, improve the quality of teaching and learning, and strengthen education management, governance, and administration efficiently.

From these various perspectives, it can be concluded that information technology plays a strategic role in creating more interactive, flexible, and efficient learning. Its success depends greatly on the ability of educators and institutions to design, manage, and utilize technology appropriately and sustainably. Thus, the use of information technology in education is not merely a technical necessity but a crucial part of the overall strategy to enhance the quality of education.

## **METHODOLOGY**

This study uses a qualitative descriptive approach. Data were collected through semi-structured interviews. In addition, direct observations were made regarding the use of the Management Information System (MIS), particularly in the areas of student administration and school finance.

## **RESULTS and DISCUSSION**

### ***The Usefulness of Management Information Systems (MIS) in Improving School Management Effectiveness***

The Management Information System (MIS) is an essential part of digital transformation in education. MIS serves as a tool to manage, store, and distribute information required by school management for decision-making. In today's modern era, the demand for effective and efficient school management is increasing, making the implementation of MIS a necessity.

MIS enables key school data—such as student records, teacher data, finances, curriculum, and inventory—to be managed more systematically. Data that were previously managed manually can now be accessed quickly, accurately, and in real-time. This clearly supports more responsive and data-driven decision-making.

According to Laudon & Laudon (2020), MIS is a computer-based system that provides information to users within an organization to support decision-making, coordination, control, analysis, and visualization of information. In the school context, this means MIS helps principals, teachers, and administrative staff to work more efficiently and effectively.

Mulyasa (2019) stated that good educational management must be supported by an adequate information system so that planning, organizing, directing, and controlling processes can function optimally. MIS serves as one of the tools to support these functions.

The main benefit of using MIS is the increased efficiency of time and labor. With a digital system, administrative processes such as attendance, grade processing, and report generation become faster and less error-prone. This

reduces the workload of administrative staff and allows them to focus on more strategic tasks.

The existence of MIS in schools helps realize transparency and accountability in school management. All data and reports are well-documented and can be accessed by relevant parties such as principals, education departments, and even parents. This aligns with the principles of good governance in education management.

In terms of effectiveness, MIS enables school management to evaluate programs and activities based on actual data. This supports more targeted and sustainable strategic planning. Thus, school programs can be designed and implemented according to real needs.

According to Davis (1989), in the Technology Acceptance Model (TAM), the success of implementing technologies like MIS depends on users' perceptions of ease of use and usefulness. Therefore, it is important for schools to provide sufficient training to teachers and education personnel so that they can optimize the use of MIS.

In its implementation, many schools still face challenges such as limited infrastructure, lack of human resource training, and budget constraints. This indicates that MIS success does not rely solely on the technology itself, but also on environmental readiness and the commitment of all stakeholders.

Research by Nugraha, Ridwan, & Amaliyah (2023) shows that MIS is very helpful in simplifying bureaucratic processes and improving the operational effectiveness of schools. However, consistent policies and oversight are needed to ensure the system continues to develop and adapt to the school's needs.

MIS also plays an important role in internal communication within schools. Through MIS, important information can be quickly conveyed to teachers, students, and parents. This creates a two-way communication system that supports collaboration and engagement from all parties in the educational process.

Beyond administrative aspects, MIS can also support the learning process. For example, by providing real-time student grades and attendance data, teachers can conduct more accurate learning evaluations. This also helps students and parents monitor academic progress directly. In the long term, proper MIS implementation will improve the overall quality of school governance. Schools will become more adaptive to change, more open to evaluation, and more prepared to face future educational challenges.

Thus, it can be concluded that the usefulness of the Management Information System (MIS) in improving the effectiveness of school management is highly significant. With adequate infrastructure, competent human resources, and supportive policies, MIS can serve as a key pillar in establishing a professional, efficient, and accountable education system.

What are the supporting and inhibiting factors in the implementation of the Management Information System (MIS) to enhance the effectiveness of school management?

## 1. Supporting Factors

There are several supporting factors, including:

### a. Availability of Technological Infrastructure

A stable internet connection, adequate computers/laptops, and suitable software are essential prerequisites for supporting optimal MIS operations.

### b. Commitment from School Management

Strong support from the school principal and management team plays a crucial role in the success of MIS implementation. This commitment includes budget allocation, training scheduling, and supervision of system use.

### c. Competence of Human Resources

Teachers and administrative staff who possess basic IT skills and a willingness to learn will accelerate the adaptation and utilization of MIS in both managerial and operational school activities.

### d. Regular Training and Mentoring

Technical training and routine mentoring enable MIS users to better understand and master the system, thus reducing the risk of errors in usage.

### e. Supportive Policies and Regulations

Support from the education department and local government in the form of policies, regulations, and technical assistance is a major driving force for the sustainable implementation of MIS in schools.

## 2. Inhibiting Factors

### a. Limited Technological Infrastructure

Many schools, especially in remote or rural areas, still face challenges in accessing adequate hardware such as computers, servers, and stable internet connections. The lack of proper infrastructure becomes a major obstacle in running MIS effectively.

### b. Low Technological Competence Among Staff

Not all educators and school personnel have the skills to operate digital applications or systems. This lack of digital literacy leads to difficulties in fully utilizing MIS, resulting in limited use or even complete avoidance of the system.

### c. Insufficient Budget Support

Implementing MIS requires an initial investment for purchasing equipment, training, and system maintenance. Schools with limited operational budgets often cannot meet these needs, making MIS utilization unsustainable.

### d. Lack of Training and Technical Support

The absence of continuous training programs for MIS users results in a low level of system understanding. Without routine training, users may experience confusion, data entry errors, or reluctance to use the system at all.

### e. Resistance to Change

A work culture accustomed to manual systems often becomes a barrier to adopting new technologies. Some staff or teachers exhibit reluctance or resistance to adapting to digital systems due to comfort with old methods or fear of technical difficulties.

## CONCLUSION

The implementation of MIS in schools offers numerous benefits in enhancing the effectiveness and efficiency of education management. However, achieving optimal results requires support from all stakeholders, including user training, provision of technological infrastructure, and regular system updates. MIS is not merely a technical tool, but a strategic instrument in creating school management that is transparent, accountable, and data-driven.

## Recommendations

### 1. Improvement of Technological Infrastructure

Schools should strive to procure adequate hardware and internet networks to support MIS usage. This can be achieved through educational budget allocations, government aid, or partnerships with third parties.

### 2. Enhancement of Human Resource Competence

Teachers, administrative staff, and school leaders need to receive ongoing training on MIS usage. The training should focus not only on technical aspects but also on the importance of information systems in supporting data-based decision-making.

### 3. Strengthening the Commitment of School Leadership

School principals, as management leaders, must demonstrate strong commitment to MIS utilization through internal policy support, system usage supervision, and data-driven decision-making.

### 4. Raising Awareness of MIS Benefits Among All School Members

A persuasive approach should be taken to help all users understand the benefits and urgency of MIS in school management. This understanding is vital to reduce resistance and encourage active participation.

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