

IMPLEMENTATION OF MANAGEMENT INFORMATION SYSTEM (SIM) IN SCHOOLS: A CASE STUDY AT SDN WONOGIRI DISTRICT

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Abstrak: Pendekatan manajemen di era digital mengarah pada kemampuan perancangan serta pemanfaatan manajemen sistem informasi (SIM). Informasi telah menjadi sumberdaya dalam manajemen, karena dapat menjadi daya bantu yang berkontribusi positif bagi kegiatan manajemen. Urgensi, sebab musabab dan solusi atas keputusan perubahan menjadi bagian penting dalam perjalanan menuju pencapaian tujuan sesuai dengan konsepsi-konsepsi dasar management. Metode penelitian yang digunakan dengan deskriptif kualitatif dengan pengumpulan data melalui observasi, lapangan dan wawancara. Analisis data dilakukan dengan menyusun secara sistematis data yang diperoleh dari hasil wawancara, catatan lapangan dan dokumentasi. Sampel dalam penelitian Kepala Sekolah dan operator sekolah SDN 1 Wonogiri, Kecamatan Wonogiri, Kabupaten Wonogiri, Jawa Tengah guna mendapatkan gambaran implementasi sistem informasi dalam manajemen di Sekolah Dasar. Terbatasnya kemampuan operator karena bukan petugas khusus dibidangnya, kurangnya animo dari tenaga pendidik dan tenaga kependidikan terhadap penguasaan pengetahuan dan teknologi terbaru serta terbatasnya pembiayaan sekolah untuk meningkatkan sarana komputer dengan spesifikasi terkini menjadi penghambat diterapkannya sistem informasi manajemen di sekolah ini. Pemikiran sistem informasi manajemen membantu mengembangkan pemikiran tentang pemanfaatan sistem informasi sebagai prespektif baru dalam memahami konsep manajemen dan peran rancangan sistem dalam memperbaiki proses pengambilan keputusan. Selain konsep dari beberapa sudut pandang, dijabarkan pula tentang fungsi, komponen, sifat, ciri dan tipe sistem informasi, tingkatan sistem informasi serta penggunaannya dalam organisasi. Realita bahwa sistem informasi menjadi komponen penting dalam keberlangsungan organisasi, terutama untuk menguatkan performa manajemen menghadapi tantangan dan menyiapkan diri memenangkan persaingan. Langkah kolaboratif dengan lembaga pemerintah dan swasta dapat menjadi solusi untuk mendapatkan dukungan bagi pelaksanaan sistem informasi manajemen dalam mewujudkan visi misi sekolah dengan lebih efektif dan efisien.

Kata kunci: implementasi, sistem informasi manajemen, problematika

Abstract: The management approach in the digital era leads to the ability to design and utilize information system management (MIS). Information has become a resource in management, because it can be a tool that contributes positively to management activities. Urgency, cause of disaster and solutions to change decisions become an important part of the journey towards achieving goals in accordance with the basic conceptions of management. research methods used with qualitative descriptive data collection through observation, field and interviews. Data analysis is carried out by systematically compiling data obtained from interviews, field notes and documentation. Samples in the study of principals and school operators of SDN 1 Wonogiri, Wonogiri District, Wonogiri Regency, Central Java to get an overview of the implementation of information systems in management in elementary schools. Limited ability of operators because they are not special officers in their fields, lack of interest from educators and education staff towards mastery of renewable knowledge and technology and limited school funding to improve computer facilities with the latest specifications are obstacles to the implementation of management information systems in this school. Management information systems thinking helps develop thinking about the use of information systems as a new perspective in understanding management concepts and the role of system design in improving the decision-making process, In addition to concepts from several points of view, it is also described about the functions, components, properties, characteristics and types of

information systems, levels of information systems and their use in organizations. The reality that information systems are an important component in organizational sustainability, especially to strengthen management performance to face challenges and prepare to win the competition. Collaborative steps with government and non-government/private institutions can be a solution to get support for the implementation of management information systems in realizing the school's vision and mission more effectively and efficiently.

Keywords: implementation, management information systems, problems

Introduction

Management in general can be interpreted as a series of activities for planning, coordinating, operating and evaluating a plan that has been set as a goal to be achieved together. According to Ma'arif (2013) Information management means a set of people, a set of guidelines and the selection of data processing equipment, storing, processing and using data to reduce certainty in decision making by providing information to managers so that they can be utilized in time efficiently. Information management as a computer-based system that provides information for several users who have similar needs. Management is used by organizations or institutions to organize their activities in realizing the vision, mission and goals of the organization (Fernando et al., 2022). Likewise with educational institutions, it is necessary to apply good management so that the goals of education can be achieved effectively and efficiently (E. Mulyasa, 2013; H. E. Mulyasa, 2022). In accordance with the pace of development of the era that enters the digital era, the application of management in organizational management is closely related to data or information processing. For this reason, information experts must understand management, management decision making and the role of system design in improving the management process (Haris et al., 2021; Wicaksono & Utama, 2022). While the principal as a manager must also increase understanding and direct involvement in the use of computer installations in the managerial process he carries out in order to achieve school goals. Thus, it can be seen the relationship between information experts and school principals in the management process. Management information systems are formal methods that provide management with timely, reliable information to support decision-making processes for more effective planning, supervision and operation functions of an organization. While in the encyclopedia of management; Management Information System (MIS) is an approach that is planned and structured to provide standard assistance that facilitates managerial processes to leadership officials (Ismail et al., 2021).

According to Djahir & Pratita (2015) suggests that a system is a collection of any components, both physical and nonphysical, that are interconnected with each other and work together harmoniously to achieve certain goals. While according to (Merriam, 2004) A system is an orderly interaction or group of interdependent items forming a unified whole. A system is also defined as an organized set of teachings, ideas or principles that are usually intended to explain the arrangement or workings of the whole systematically. Briefly it can be explained that the system is a collection of elements that are interconnected and interact in a unity to carry out a process of achieving a main goal (Fransiska et al., 2021).

Information in an institution occupies an important position as a supporting capacity for the preparation of management strategies in ensuring the continuity of the organization. According to Kelly & Cegielski (2011), information is data that has been processed into a form that is meaningful to the recipient and useful in current or future decision making. The definition is a definition of information in the use of information systems. Meanwhile, according to Coronel & Morris (2016) information is the result of raw data that has been processed to provide results in it. From the opinions above, it can be concluded that information is the result of data processing so that it has meaning for the recipient who describes a real event and can be used as a tool for decision making.

Information systems are the process of collecting, processing, analyzing, and disseminating information for a specific purpose (Rainer & Cegielski, 2014; Wahyudin et al., 2023). Meanwhile, according to Jones et al (2011) an information system is a system contained in an organization that meets the needs of daily transaction managers, supports operations, managerial and strategic activities of an organization and provides certain external parties with the reports needed. According to Brien & Marakas (2011) An information system is an orderly combination of people, hardware, software, and collects, transforms, and disseminates information within an organization. From the various formulations of the understanding above, it can be summarized that information system management is a unit of subsystems that are interconnected and work together to process data, receive input, process it, and produce output in the form of information as a basis for decision making. According to Nursahid et al (2015) mentioned the components of information

systems consisting of Hardware, Software, Data, Humans, and Procedures. In addition to components, it is also necessary to know the nature of information systems as effective processing, effective information management, flexibility, and user satisfaction. So it can be understood that the information system has up-to-date for the recipient (Hermawan et al., 2020).

In carrying out his function as a principal, he must understand his internal and external environment. By maintaining the relationship with the environment, it is hoped that it will provide supporting capacity for improving organizational performance to achieve goals (Babaei & Beikzad, 2013; Rauf et al., 2023; Tukiran, 2023). One of the supporting capacities of the organization is an information system that is very closely related to data and computers. In accordance with technological advances, the use of computers in managerial applications will provide convenience in achieving organizational goals in this case schools. So, the role of management information systems is actually to present information for decision making and for planning and controlling its operations.

The description above helps lead to the understanding that the management information system (MIS) has a very important role in carrying out management activities (Demir et al., 2006), especially assisting leaders or decision-makers in formulating policies and determining work programs:

Management Information System (MIS)	1) Improve timely and accurate data accessibility
	2) guarantee the availability of quality
	3) develop an effective planning process
	4) Identifying Needs
	5) Exercise precise control over the organization's assets
	6) Understand the consequences of information systems and technology
	7) System development and maintenance

Based on Table 1 above, how effective the application of MIS is to facilitate management in achieving goals. Educational information services are an effort to meet information needs for all components involved in the education management process, starting from preparing plans, making continuous improvements and development of the services provided, in order to provide satisfaction for users. Having an information system means that educational institutions have utilized information technology which functions as a conveyor of information effectively and efficiently according to the needs of improvement and development (Hadisi & Muna, 2015). According to Rochaety et al (2009) explained that the use of IT, educational institutions can use as methods, media, and learning resources to support ease of access and equity in education so as to give rise to new concepts and strategies which are then applied in practice by several educational institutions that have the opportunity to utilize these concepts and strategies.

However, in its application in the world of management information system education, of course, it faces several problems and obstacles, related to organizational operations. The problems faced are closely related to the resources owned by an organization in the area where the educational institution is located. Here will be described about the understanding of management information systems, components, objectives, functions and obstacles as well as suggestions as an effort to overcome them.

Method

The research method is carried out using a qualitative descriptive approach through the collection of facts from natural conditions as a direct source with instruments from the researcher himself (Moleong, 2002). Some of these descriptions are used to find principles and explanations that lead to conclusions. In this case, researchers made direct observations to the research location, namely SDN 1 Wonogiri to record field facts and collect data from selected informants, namely the operator and school principal SDN 1 Wonogiri, Wonogiri District, Wonogiri Regency, Central Java Province. Descriptive research because researchers conduct research is not intended to test certain hypotheses but only describe 'what is' about a variable, symptom and also the situation in this case is the implementation of the management information system (Sukmadinata, 2007). Researchers describe findings in the field and try to find existing problems and offer solutions to existing obstacles. The data collection technique was carried out by field observation and interviews with the principal, operator of the information system or the technology facilities section of Sekolah SD Negeri 1 Wonogiri as selected informants. Then the data that has been collected is analyzed using interactive analysis.

Findings and Discussion

Profile SDN 1 Wonogiri

Sekolah Dasar Negeri 1 Wonogiri is the favorite public elementary school in Wonogiri regency. Of the 497 students in the 2021/2022 school year, many students have contributed a lot of achievements to this school. Not only on behalf of students, but also educators and even achievements on behalf of schools have been achieved, both from the sub-district level to the national level.

Table 2. Human Resource Profile of SDN 1 Wonogiri

	Jumlah	Lulus n
Headmaster	1	S2
Teacher	4	S2
	23	S1
School Administration	3	S1
Librarians	1	S1
School Guard	2	SMA
Security Personnel	1	SMA

Based on table 2, human resources, namely principals, educators and education personnel placed in this school are outstanding teachers and principals who have a track record of high achievement. It can be said that this school is a crater for elementary school educators in Wonogiri, because some teachers have creative and innovative teaching techniques assisted by education personnel who have the ability in their fields. Many new principals were born from this school who later occupied other elementary schools in Wonogiri sub-district as well as in other areas in Wonogiri district.

The facilities and infrastructure owned by this school are quite representative to get the title of a superior school. A two-story school building with adequate classrooms with a large school yard, library, teacher's room, principal's room, computer room, language room, UKS, skills room containing artistic facilities such as; a set of gamelan and musical instruments, as well as a hall equivalent to 2 classrooms. As for spiritual formation, there is a mosque that accommodates more than 50 worshippers with ablution places of more than 10 points along with 2 separate MCK rooms for boys and girls. There is also a school cafeteria that is quite spacious and open, adding another playroom in this school. Meanwhile, although the number of MCK facilities is not in accordance with the ratio of the number of students and teachers, it is still quite adequate because there are no queues at this facility. The availability of infrastructure is a resource that becomes a supporting capacity in the teaching and learning process at this school.

The special learning system of this school is the cultivation of discipline and good manners, which begins with greetings and salim made by students to teachers when entering the school gate. Religious formation is carried out intensively by holding dhuha prayers and joint prayers every Friday morning, while for those of other religions religious teachers are provided according to the needs of 4 other religions from students to jointly carry out worship formation. Extra BTA is one of the things provided at this school, in addition to drumband and karawitan, dance and vocal sports as well as sports. Joint gymnastics held on Saturday is a time of relaxation for all components of the school. The existence of a mini library in each class is an effort to improve literacy by honing students' reading habits. Even in large classes, an English corner is provided to provide additional foreign language skills which are one of the local contents of the learning syllabus.

With the explanation above, it shows the potential of schools that are the capital of school development. The principal is the person in charge of the school management process that implements management principles towards a superior child-friendly school that is ready to adjust the development of science and technology. In other words, this school is very ready to implement information systems as resources that will encourage school movement in realizing the vision, mission and goals of the school more effectively and efficiently.

Management Information System Implementation

The utilization of information systems as one of the resources in school management must be immediately implemented to align the movement with the progress of science and technology. The

information system is expected to help the school management process in order to achieve school goals. As with the concept of management, planning is the beginning of activities that will formulate a program of futures activities. Followed by organizing or implementing programs that have been formulated in planning. Supervision is supervision and guidance on program actualization to be in accordance with what is expected in planning. Planning all aspects of school operations, from the learning system to financing by involving all school components including the school committee. After obtaining approval, the plan is carried out periodically according to the agreed priority scale, at least at the beginning and end of the semester. Supervision and evaluation steps are supervision steps in order to achieve the effectiveness and efficiency of the implementation of school programs by mobilizing all available potential resources.

Meanwhile, the information system at SDN 1 Wonogiri is one of the resources that helps the implementation of the school management process. It is hoped that the information system will provide assistance to facilitate the process in implementing school programs because it will become a data bank and organize it as information that is easily accessible to all elements of the school. Information system management will manage data about learning materials, administration, finance and personnel and student data and all information in the school. In brief, it can be explained that the school information system is a provider of data / information about various things about the school and as an easy way to share information as a way to establish communication between the school and all elements of the school, both internal and external.

The results of an interview with Mr. Toyik Hartono, as the person in charge of managing the school information system at SDN1 Wonogiri, explained that the school has actually pioneered the information system by creating several digital platforms, including developing school websites, youtube channels, social media with school and teacher accounts as well as publications through running text, not only explaining school profiles but also updating school activities and news including being a learning medium. Concrete examples of the use of technology information in learning is that during the covid-19 pandemic all teachers have a Microsoft Office 365 account as a medium to interact with students. This is one of the ways chosen by schools to continue to carry out learning beyond distance due to the implementation of PPKM during the pandemic.

During the covid-19 pandemic, the entire world of chaos as well as the world of education and information technology offered solutions. Information technology provides help to stay in touch without having to meet in real but still be able to do learning even if only in a virtual classroom. Online learning then becomes a new way to do activities and communicate in various interests. Of course, his arrival is fast and presents its own problems. Like research Rahmida (2021) who took issue with online learning in elementary schools conducted in Pinrang Regency during the COVID-19 Pandemic, mentioned several problems from poor signals, so that teachers are afraid to carry out the learning process, Students do not have facilities and infrastructure such as mobile phones, quotas and disruption of connection, and parents who cannot provide or have the facilities and infrastructure needed are also still low understanding of technology due to the absence of tools to access.

With more or less the same picture, management information systems in schools have not been able to carry out their role optimally. The result of the discussion with Mr Yoni Ernawanto, the problem faced by SDN 1 Wonogiri in implementing school information systems is the lack of alignment of government policies towards schools which is expected to provide space for creation and innovation to develop more adequate and efficient school information systems. Another difficulty is the difficulty of finding relevant operators in the fields of technology and computer science because they cannot lift personnel outside the educators and education staff outside the predetermined. So that school information system operators at SDN 1 Wonogiri are educators who have excess knowledge that supports the implementation of management information systems. The limited time of operators to manage data because they have to share their actions with mandatory teaching tasks is an obstacle to the system applied. Need funding assistance as an effort to add computers with more adequate capacity. In general, although it has made many efforts to use the management information system as a potential resource for school managerial implementation, it can be said that the management information system in this school has not been able to optimally carry out its function as a provider, manager and presenter of information that helps the implementation of school programs according to the vision and mission effectively and efficiently.

Although it can be said that the management information system at SDN 1 Wonogiri school has not been able to optimally carry out its function as a provider, manager and presenter of information that helps achievement, this school has taken steps to develop information system management as a way to help management to make changes. Some of the good changes that are perceived are that; 1) The management

information system provides a lot of data about school profiles that can be accessed in several school social media; Instagram and youtube, 2) Information from social media channels, such as instagram and youtube becomes a medium of promotion and communication between internal and external components of the school which in fact can increase public attention to SDN1 Wonogiri which appears in an increase in interest which increases by an average of 10% each year, 3) Attention in the form of cooperation with private / non-government institutions is a successful promotion which is part of the enactment of information systems.

Conclusion

Information systems will be one of the main focuses of management development in schools in order to develop superior technology-friendly schools at SDN 1 Wonogiri. A good information system will greatly assist the principal in formulating various policies to manage the management of the school he leads, in order to provide better services to all elements of the school including maintaining harmonization of communication between the school and the community as recipients of school outcomes. In other words, the management of school information systems will greatly help the principal to develop his institution to realize the goals of the school he carries. In the end, we convey suggestions that will be solutive thinking to increase the synergy of school components to improve the ability to master renewable knowledge and technology. It is very important to carry out a collaborative movement between the government and non-government institutions to implement management information systems to support the achievement of a more effective and efficient school mission. With the fact that changes must be made in order to harmonize the steps of progress in science and technology where education has an important role as a guide to good changes towards a better human civilization, ideally, motivation will grow for the development of science and become a stimulant for further research by using new dimensions on the topic of information system management discussion. With the hope that it can contribute new treasures for the development of more useful science

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