

Information Management Database System Managerial Supervision of School Supervisors

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ABSTRACT

This article aimed at managing information technology based school supervisory managerial supervision database. The approach in this study uses a system approach with a waterfall model. The steps of developing the model are requirements analysis, design, implementation and unit testing, integration and system test. The results show that School supervisors in the North Musi Rawas District Office still use the manual system, and design of managerial supervisory information systems for principals are designed based on planned flowcharts. The results of expert validation, the supervisory managerial supervisory database includes; curriculum and learning administration, class administration, school administration and management, organization and institutions, facilities and infrastructure, staffing, funding, students, community participation, school cultural environment are appropriate to be used. The appropriate Implementation of the School Supervisory Managerial with Supervision Database SIM.

Keywords: *Management Information System, Management Supervision, System Managerial Supervision*

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INTRODUCTION

School management information systems are very supportive in improving school performance. The result of Saxena & Aldarbesti, (2014) education management information system (EMIS) plays an important role in developing appropriate plans, strategies and policies for improving the education system. Educational management information systems play an important role in the planning, strategy and implementation of education system policies. The results of Abu & Rima's research, (2008) the use of information and communication technologies, including SIS, is in its initial stage despite the adopted strategy by the UAE government to accelerate the effective utilization of educational management and automation technologies in the educational institutions and the Ministry of Education itself. The use of information technology can accelerate the management of education in educational institutions (Kristiawan, 2014; Irmayani et al, 2018; Wandasari et al, 2019)

Likewise, the research results of Syahroni, & Budiman, (2017) & Pradhan, et al., (2007) employee management unit database management information system can help the lecturer performance management system related to the tasks that have been carried out by

staffing. According to the research results of Cuartero, & Role, (2018) the education management information system is very effectively applied to elementary schools.

Management information systems are very helpful in managing school data, employees, and can support decision making. However, this research emphasizes more on the management information system of the school supervisory managerial supervision database, because school development and progress cannot be separated from the role of the school supervisor who routinely oversees school development. Minister of National Education Regulation No. 12 of 2007 regarding school supervisory standards asserts that a supervisor must have 6 (six) minimum competencies, namely personal competence, managerial supervision, academic supervision, education evaluation, research and development and social competence (Kristiawan et al, 2019; Andriani et al, 2018; Renata et al, 2018). The current condition in the field is of course there are still many schools supervisors who have not mastered the six dimensions of competency properly. The school supervisors' management supervision database management information system is designed to make it easy for school supervisors to carry out management supervision activities. The management of the principal's managerial supervision database can assist school supervisors in managing data online, so that school supervisors (input, process and output data) are fast, accurate and accurate.

Managing data manually slows the performance of school supervisors, such as; 1) tracking school data requires searching documents or unpacking documents, this can take long time to find the desired documents, 2) school supervisors have difficulty in submitting data on school development, especially schools with great distance from the Department of Education and Culture, thus removing the time, cost and effort, just simply to provide the data report the development of the school, and 3) storage of school data manually risk to the occurrence of floods, fires, and damage to the document to animals (termites, cockroaches or insects) that can damage the school's data is stored in paper-based documents. With a school supervisory managerial supervision database management information system, all data is managed integrally and managed through a database program and all data is stored on the Education and Culture office server. Hence, this article aimed at managing information technology based school supervisory managerial supervision database

METHODS

The approach in this study uses a systems approach with a waterfall model. The steps in developing the model are 1) requirements analysis; 2) design; 3) implementation and unit testing; and 4) integration and system test. The stages can be explained as below.

1. Requirements Analysis. This process seeks and analyses the needs of the whole system to be applied in software.
2. Design. This process is used to convert the above requirements into representations in the form of "blueprint" software before coding begins. The design must be able to implement the requirements mentioned in the previous stage.
3. Implementation and unit testing. To be understood by machines, in this case is a computer, then the design must be changed into a form that can be understood by machines, namely into programming languages through the coding process. This stage is the implementation of the design phase which is technically done by the programmer.
4. Integration and system test. In this phase the system is tested through expert review, so it can be seen the lack of a system that has been designed (Velmourougan, Davachelvan, & Kayalvizi, 2010)

RESULTS AND DISCUSSION

Needs Analysis

The needs analysis that was carried out included collecting data on the management of the school supervisory managerial supervision database, the use and utilization of information technology, and the implementation of the managerial supervisory database management information system in North Musi Rawas Regency. Then the researchers conducted interviews with school supervisors and the distribution of questionnaire instruments to the school principal to obtain data about the management of the school supervisory database.

The results of an initial survey of researchers of 30 respondents consist of principals of supervising managerial school supervisors still using the manual system?

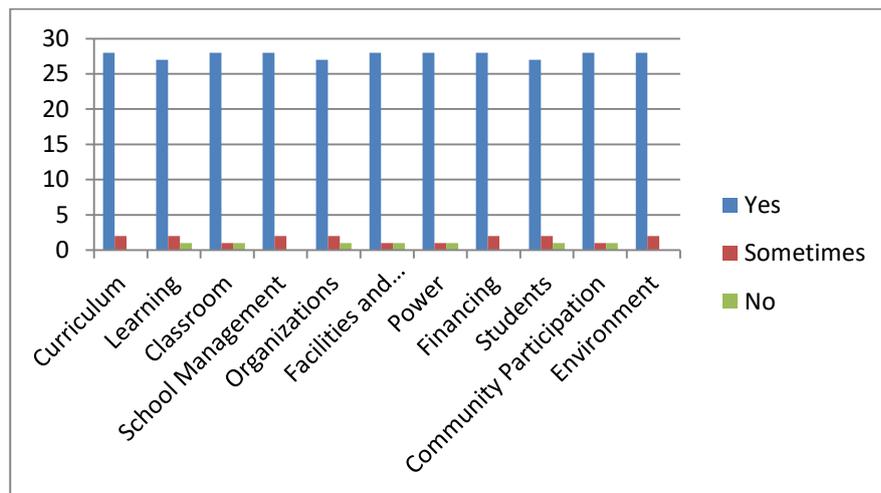


Figure 1 Management of Data Supervisors

Based on the above data, it can be seen that school supervisors still use the manual system, 95% of the average respondent answered (yes) the management of school supervisors' data manually. Manage data manually slow down the performance of school supervisor, such as data tracking 1) superintendent of schools includes administration curriculum and learning, class administration, administration and management of schools, organizations and institutions, infrastructure, personnel, financing, learners, community participation, school cultural environment. requires searching documents or rummaging through documents, this can take a long time to find the desired documents, 2) school supervisors have difficulty in conveying data on school development, especially for schools that are a long distance from the Department of Education and Culture, so as to spend time, cost and personnel, just to provide school development report data and 3) manually storing school data at risk of floods, fires, and document damage to animals (termites, cockroaches or insects) that can damage school data stored in documents made from material paper base.

SIM Database Managerial Supervision Design

Based on the needs analysis, it is very important to design a school supervisory management supervisory database management information system. Next is the supervisory managerial supervisor's flowchart.

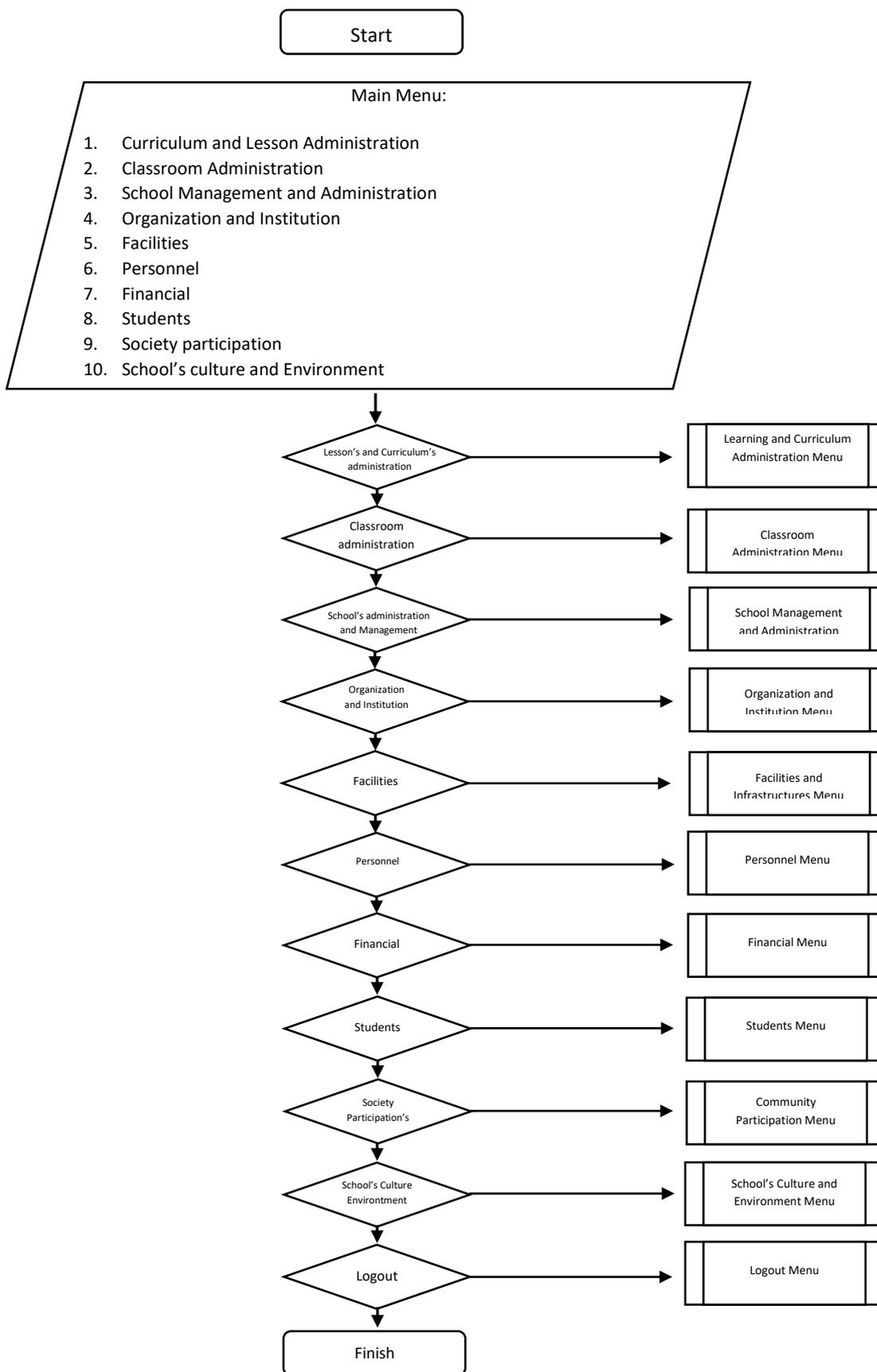


Figure 2 SIM Database Design Managerial Supervision

The Implementation of Menu Components Managerial Supervisor Database

SIM menu components of the Managerial Supervision Database include; a) school data, b) supervisor data, c) curriculum administration, d) learning administration, e) class administration, f) work programs, g) facilities and infrastructure, h) personnel, i) financing, j) students, k) community participation, l) environmental aspects, m) culture, and n) reports.

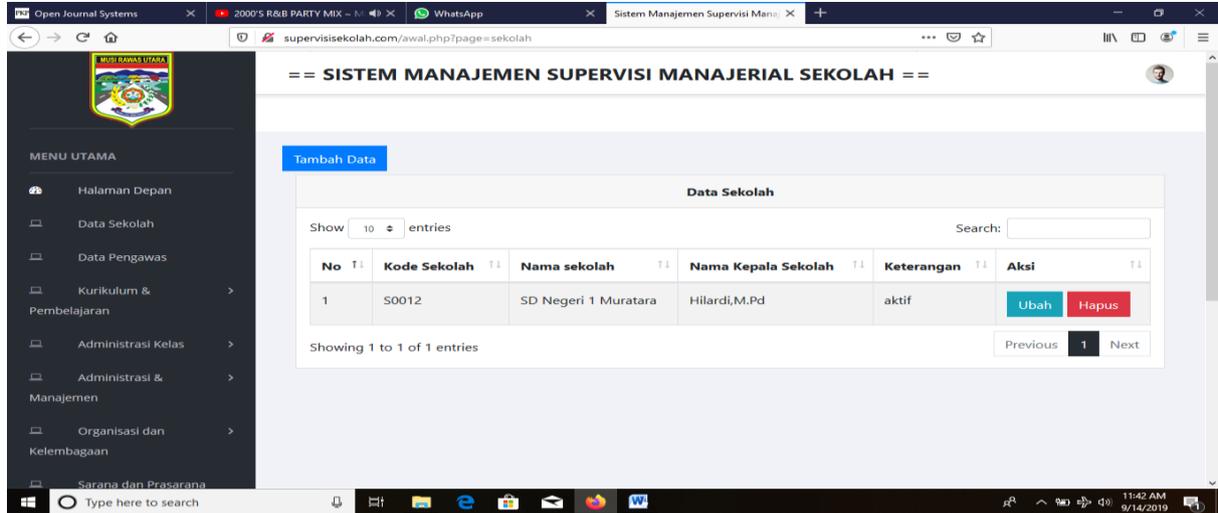


Figure 3 SIM Database Managerial Supervision Menu

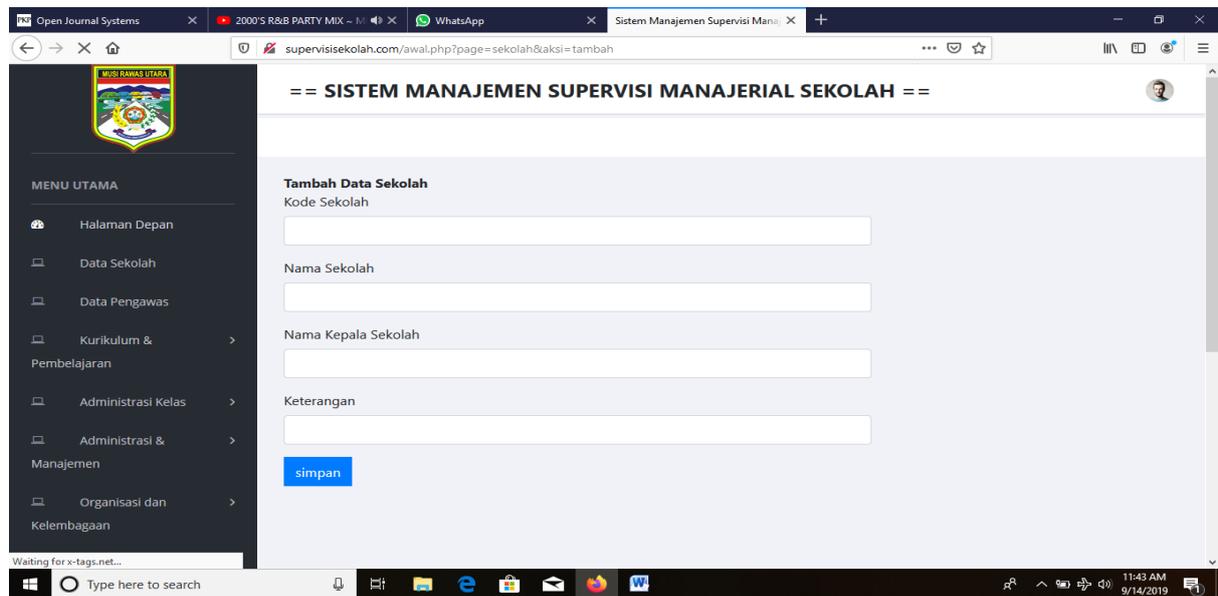


Figure 3 Input Managerial Supervision Database

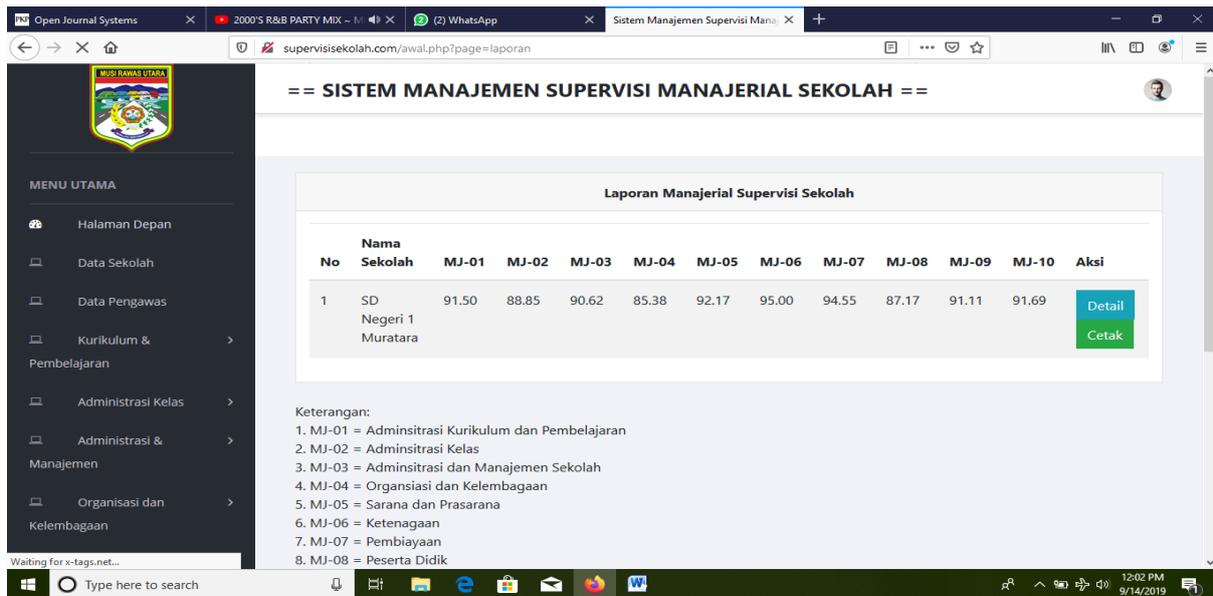


Figure 4 Report of the Managerial Supervision Database

Expert Review

a. Database Expert

Database experts evaluate the integration of menus and submenus of developed products. The validation results were carried out to see the feasibility of integrating the school database menus and submenus. The results of the database expert validation were carried out on the supervisory managerial supervision database of the school including; administration curriculum and learning, classroom administration, administration and management of schools, organizations and institutions, infrastructure, personnel, financing, learners, community participation, cultural environment of the school

- 1) Feasibility of curriculum administration. Based on the results of the validation of the curriculum administration menu is feasible to use.
- 2) Class administration eligibility. Based on the results of the validation, the menus and submenus of class administration are appropriate to use.
- 3) Eligibility menu and submenu profile. Based on the results of validation, the school management menus and submenus are appropriate to use.
- 4) Feasibility of organizational and institutional menus and submenus. Based on the results of expert validation, the menus and submenus of the organization and the institution are suitable for use.
- 5) Feasibility of facilities and infrastructure menus and submenus. Based on the results of expert validation, the menus and submenus of facilities and infrastructure are feasible to use.
- 6) Feasibility of the menu and submenu of personnel. Based on the results of expert validation, the menu and submenu of personnel are appropriate to use.
- 7) To the impropriety of the menu and submenu financing. Based on the results of expert validation, the menu and submenu of financing are feasible to use.
- 8) Feasibility of the menus and submenus of students. Based on the results of expert validity, the menus and submenus of students are feasible to use.

- 9) The feasibility of integrating the menu of facilities and infrastructure. Based on the results of the expert validation the menu and submenus of facilities and infrastructure are feasible to use. The facility and infrastructure menu consists of a) submenu of facilities, facilitating users in managing facility data, b) infrastructure submenu, facilitating users in managing infrastructure data.
- 10) Feasibility of menus and submenus for community participation. Based on the results of expert validation the menu and submenu community participation are appropriate to use.
- 11) Feasibility of the school's environment and culture. Based on the results of the validation of the menu and submenus of the school's environment and culture.

b. Website Expert

Website experts evaluate the implementation of school database systems developed online. The results of the validation are carried out to see the feasibility of the school database system implemented online. Website expert validation is carried out on 5 indicators, namely; a) content, b) readability, c) speed, d) technological sophistication, and e) access.

- 1) Content. Based on the results of the validation of content SIM Database Supervision Managerial Supervisory Schools are not eligible to be used, because it contains menus and submenus required by the user.
- 2) Readability. Based on the results of the validation of the SIM Supervisory Managerial Supervision Database the school supervisor is suitable to be used, so that the user in this case the admin can operate it properly.
- 3) Speed based on the results of validation, the speed (speed) of the School Supervisory Managerial Supervision Database SIM is suitable for use, so users can access the school Supervisory Managerial Supervision Database SIM.
- 4) Technological sophistication, based on the results of the validation, the technological sophistication of the School Supervisory Managerial Database SIM technology is good and feasible to use, so that users can access the Supervisory Managerial Supervising SIM Database at their respective schools in providing school progress reports.
- 5) Access, based on the results of the validation, SIM Access Managerial Supervision Managerial Database of the school is quite good, so users can easily connect.

Based on the study of experts from both database and website experts, it can be stated that the School Supervisory Management Supervising SIM Database is suitable for use. Management Information System The principal's managerial supervision database can help elementary school supervisors manage data online, so that school supervisors (input, process and output data) are fast, accurate and accurate.

This finding more emphasizes on the management information system of the school supervisory managerial supervision database, because school development and progress cannot be separated from the role of the school supervisor who routinely oversees school development. Managing data manually slows the performance of school supervisors, such as; 1) tracking school data requires searching documents or unpacking documents, this can take long time to find the desired documents, 2) school

supervisors have difficulty in submitting data on school development, especially schools with great distance from the Department of Education and Culture, thus removing the time, cost and effort, just simply to provide the data report the development of the school, and 3) storage of school data manually risk to the occurrence of floods, fires, and damage to the document to animals (termites, cockroaches or insects) that can damage the school's data is stored in paper-based documents. With a school supervisory managerial supervision database management information system, all data is managed integrally and managed through a database program and all data is stored on the Education and Culture office server.

Other finding also asserted that information systems are very supportive of managers in organizational decision making (Laudon, 2015). According to Laudon, & Laudon, (2013) the information system is a n information system can be defined technically as a set of interrelated components that collect (or retrieve), process, store and distribute information to support decision making and control in an organization. The information that is managed should be complete, accurate and up to date. Because changes in the organization's environment both externally and internally so quickly affect organizational performance. Gokzen, Damar, & Dogan, (2016) explained " the management of information which is a strategic personnel should be complete, accurate and timeable, and it needs managers who are believers of transformation and change". Information management is an appropriate strategy in dealing with organizational change and transformation (Imran, et al., 2016; , so that complete, accurate and up-to-date information is needed. Then according to Karim, (2011) Management Information Systems (MIS) is the key factor to facilitate and attain efficient decision making in an organization. Management information systems are a key factor in efficient decision making in organizations.

The supervisors must have six (6) minimum competence, namely personal competence, managerial supervision, academic supervision, evaluation, education, research and development, and social competence (National Education Minister Regulation No. 12 of 2007; Thalib & Manda, 2016). The dimensions of supervisory competence are mastering the methods, techniques and principles of supervision in order to improve the quality of education in schools, 2) developing supervisory programs based on the vision, mission, goals and educational programs in schools, 3) compiling work methods and instruments needed to carry out the main tasks and supervisory functions at school, 4) compiles reports on the results of supervision and follows it up to improve the next supervision program at school, 5) fosters principals in the management and administration of education units based on management of improving the quality of education in schools, 6) fosters principals and teachers in implementing counseling guidance at school, 7) encouraging teachers and principals to reflect on the results achieved to find strengths and weaknesses in carrying out their main tasks at school, 8) monitoring the implementation of national education standards and utilizing the results to assist principals in preparing accreditation sek if (Directorate General of Quality Improvement of Educators and Education Personnel, Ministry of Education, 2009). The managerial supervision data component is managed by a management information system, resulting in a managerial supervision database component that can be tracked online through the website. The managerial supervision database component includes; 1) curriculum and learning administration, 2) classroom administration, 3) school administration and management, 4) organization and institutions, 5) facilities and infrastructure, 6) personnel, 7) funding, 8) students, 9) community participation, 10) school cultural environment.

With the information management system supervision database, the task of the school principals in managing supervision data will be much easier. Thus, supervision data management should not be done manually but through integrated system. This integrated system can save time and energy especially in the period of covid 19 pandemic where face to face learning in school is not allowed. However, through the management information system supervision database, the online system of supervision can be carried out.

CONCLUSION

The development of SIM Database Managerial Supervision Supervisors consists of the administration of the curriculum and learning, classroom administration, administration and management of schools, organizations and institutions, infrastructure, personnel, financing, learners, community participation, cultural environment of the school. The implementation of SIM Database Managerial Supervision Supervisors is unfit for use.

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The author had participated in the research and approved the final version of the manuscript.

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