IJSSR
International Journal of Social Service and Research

INTERNATIONAL JOURNAL OF SOCIAL SERVICE AND RESEARCH

# ACADEMIC INFORMATION SYSTEM MANAGEMENT TO IMPROVE SERVICE QUALITY TO STUDENTS DURING THE COVID-19 PANDEMIC AT UNIVERSITIES IN JAMBI PROVINCE

**Sepryhatin Dioputra[1], Novi Rukhviyanti[2], Achmad Pahrul Rodji[3]**
STMIK IM Bandung, West Java, Indonesia[1,2]
Krisnadwipayana University, Bandung, West Java, Indonesia[3]
Email: sepryhatindioputra@rocketmail.com, novi.rukhviyanti@stmik-im.ac.id, achmadpahrul.r@gmail.com

**Abstract**

Higher education with standards and good academic service management quality is the goal of every university's efforts. In Jambi Province, in particular, good management applied to a university is one of the essential factors in improving the quality of service for students, the community, or the university itself. Not a few universities whose academic service quality still does not meet the satisfaction threshold in the assessment, one of which is offline-based services that will usually hinder the delivery of existing information. The universities of UNAMA (University of Stikom Dinamika Bangsa) and IAI Tebo in Jambi Province are universities whose every delivery of academic information focuses on computers and technology. The advantages and disadvantages of the information system that is run, it is necessary to conduct a study to combine each of the advantages and disadvantages of the two universities. By applying qualitative methods, it is hoped will provide helpful research results. The focus of this research is directed at (1). Planning, (2). Implementation, (3). Evaluation (4). Solutions or follow-ups in improving the quality of academic services at universities using the Deming cycle management theory. This study uses a descriptive method with a qualitative approach and data collection by conducting observations, interviews, and documentation studies, so it can be concluded that a complete management information system can be applied to other universities, especially those that are still offline.

**Keywords:** Universities; management; academic service information systems

Received 24 May 2022, Revised 26 May 2022, Accepted 30 May 2022

## INTRODUCTION

In the current era of globalization of the Industrial Revolution 4.0, technological advances are overgrowing, especially in computers and information systems. In the face of global competition and to meet the need for information, universities need a sound information system to get quality information. Information is needed for management as a source of accurate decision-making. The existence of science and technology that is increasingly advanced today will help a system run and its development. A well-developed and smooth system will produce information effectively and efficiently, thus supporting progress and supporting existing activities.

Information is the basis of decision-making, and if the decision is late, it can be fatal for the organization. Nowadays, the high value of information is due to the speed with which the information is obtained, so the latest technologies are needed to obtain, process, and convey it. The information needed includes information obtained from data processing reports at an agency or

organization. The data processing in question includes storing, placing, and searching for data related to the operational implementation of the organization or agency.

In general, systematic, integrated data processing has been implemented by several agencies, one of which is the UNAMA College and IAI Tebo Jambi Province, whose academic information system management covers various aspects of data needs, ranging from primary, secondary, and primary data acquisition. Development indicators are compiled and computerized to provide analytical support or valuable input for determining development directions and services. However, there are still advantages and disadvantages that are indicators of the less than the optimal implementation of the existing information system management. In addition, problems that often arise from manual data management are ineffective and inefficient archiving, reporting not actual data, and delays in delivering academic service information.

With a study of the two universities, it is hoped that it will be able to convert any shortcomings and advantages of existing information system procedures so that it can produce a complete academic information system management in the context of developing his institution to face competition increasingly stringent. Every university must have a robust and reliable management information system (Fatih, 2017). This process is, of course, supported by applying a suitable method so that the qualitative method feels right to solve the cases that occurred in the study. One of the management models that can be applied to the Institute of Islamic Religion (IAI) in Tebo Regency and UNAMA University Jambi Province in managing information systems is the PDCA (Plan, Do Check, Action) management model, which will result in continuous improvement or kaizen quality as seen in the Deming Cycle (Benneyan & Chute, 1993). The improvement model will run continuously and is developed on four main components sequentially (Prasojo & Riyanto, 2011). The Deming cycle is a continuous improvement model developed by W. Edward Deming, which consists of four main components in sequence. Thus, the process of managing information systems at universities can be started by planning what needs are needed to complete the needs of information systems in order to improve the quality of student services, conducting trials of developing information system services that can be compared with various existing information systems, identify errors or deficiencies in the development of information systems, and provide effective and efficient solutions in the application and development of information systems in order to improve the quality of student services at universities.

The Academic Management Information System (SIM Academic) is specifically designed to meet the needs of universities that want computerized education services to improve performance, service quality, competitiveness, and the quality of human resources (Sevima, 2020). In addition to discussing academic information systems, in this study, the researcher also tries to explain the relationship between information systems and service quality, where a good information system will produce good service quality. Academic Service Quality itself is meeting the needs of students or students in educational services in an educational institution. From what is expected and received, the quality of service must constantly be improved to meet customers' needs, both students and students.

Based on the background of the problem above, this study aims to develop a model of an academic information system based on meeting the quality of information system services. In particular, the research aims to (1) develop an information system management model based on academic information system management to improve the quality of academic services at tertiary institutions and (2) determine the empirical

validity of information system management on the modification of management information systems to improve the quality of academic services, and describe the principles of management theory, including (1) planning, (2) implementation, (3) evaluation, and (4) solutions or follow-ups in improving the quality of academic services at universities.

## METHOD

This research method is descriptive with a naturalistic qualitative approach (Creswell & Creswell, 2017). Through this study, the author will describe and analyze the implementation of academic information system management in improving the quality of higher education services.

In line with this method, the following steps were taken; (1) selecting and determining the research location, (2) communicating with the object to be selected, both formally and informally, (3) identifying informants, and (4) recording everything that occurred at the research location based on the facts of the document data, observations and interviews were carried out. For recording, the researcher will write down the facts at the location during the research. To produce specific products, research that needs analysis is used to test the effectiveness of these products so that they can function in the broader community. Research is needed to test the effectiveness of these products (Sugiyono, 2019).

## RESULTS AND DISCUSSION

Academic Information System Management to Improve Service Quality to Students During the Covid-19 Pandemic at Universities in Jambi Province, specifically at UNAMA and IAI Tebo, it is necessary to develop an information system management model based on academic information system management. It is also necessary to have empirical validity of information system management on modifying information system management to improve the quality of academic services. Academic information system management to improve the quality of this service is also inseparable from the principles and management functions that must be carried out systematically. This can be explained as follows:

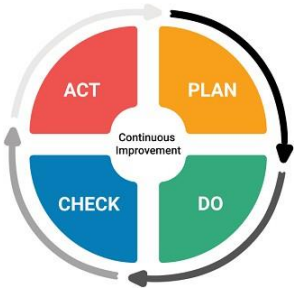


**Image 1. Plan, Do, Check, Act (PDCA) in developing a management model for higher education academic information systems.**

Planning (plan), in planning an academic information system, management must understand and describe the form of service or information needs that will be conveyed to students, the community, and lecturers. Then the description of the identification results is used as a follow-up to the solution to the problem. Planning the management of academic information systems is divided into three stages. Namely, screening based on the emergence of several academic information system problems felt by lecturers and those closest to students (parents and families). A referral or transfer stage is carried out if the problem cannot be admin/lectured. Overcome assignments to expert/professional programmers (application development developers and so on). However, if the admin/lecturer feels able to handle it, there is no need to make a referral. The next stage is a specification, identification of results based on data collection and screening, and referral stating that the information system management problem is quite severe and requires handling;

development actions will be carried out by forming a team that will carry out development.

Identification is the initial planning of activities that precede running the information system. Identification is the activity of marking or recognizing something, which is defined as a screening process or the process of finding cases in the field. Identification here can also be referred to as the early detection of problematic academic information system management, which has failed or is missing information. Identifying a problem means identifying a condition or something that feels deviant. Problems in academic information system management are obtained from student complaints, their families, and lecturers' complaints when accessing information or from experiences in the field.

Planning is determining goals and determining the best way to achieve goals (Robbins & Coulter, 1999). Planning is the function of a manager, which involves selecting alternative objectives, policies, procedures, and programs (Koontz, O'Donnel, & Weihrich, 1986). Planning is the function of managers to select goals, policies, procedures, and programs from various alternatives. The first stage of the PDCA model is to identify the problem to plan the steps that need to be taken to find a solution. This is adapted to the size of the project, whether large or small, complex or straightforward. Usually, this stage contains small steps that need to be taken to plan appropriately to anticipate the possibility of failure.

Implementation (Do) of academic information system management, SIM ACADEMIC (Academic Management Information System) is an Academic Information System that was built to provide convenience to users in online campus academic administration activities, such as the New Student Admission (PMB) process, making class schedules, filling in the Study Plan Card (KRS), filling in grades, guardianship, managing data for lecturers & students. This system can also function as a support for data analysis in determining campus decisions. Academic SIM is the right solution for universities because this system is usually already integrated with several modules, including:

1) New Student Admission (PMB)
2) Academic Finance
3) Host to Host
4) Academic Administration System
5) PDDIKTI Integrator

Management of academic information systems is an activity or process in identifying and processing data, conveying data and evidence, which then responds to these facts with a certain size or parameter based on a specific purpose. To get the facts, data, and evidence, a method/measurement tool is needed. In implementing management information systems, information system management activities are carried out by one university and another, referring to the theory of Do in the "Daming Cycle. The "Do" is to implement in the PDCA cycle: "Develop and test potential solutions. The Do stage is the stage of implementing or carrying out everything that has been planned at the Plan stage, including carrying out the process, producing and collecting data (data collection) which will then be used for the check and act".

Do in the management of academic information system management, implementing an academic information system must go through the planning process of screening, referral, and classification (B & Mclaughlin, 2015). An academic information system can be carried out. The stages of the implementation of the academic information system will be described in the chart below:

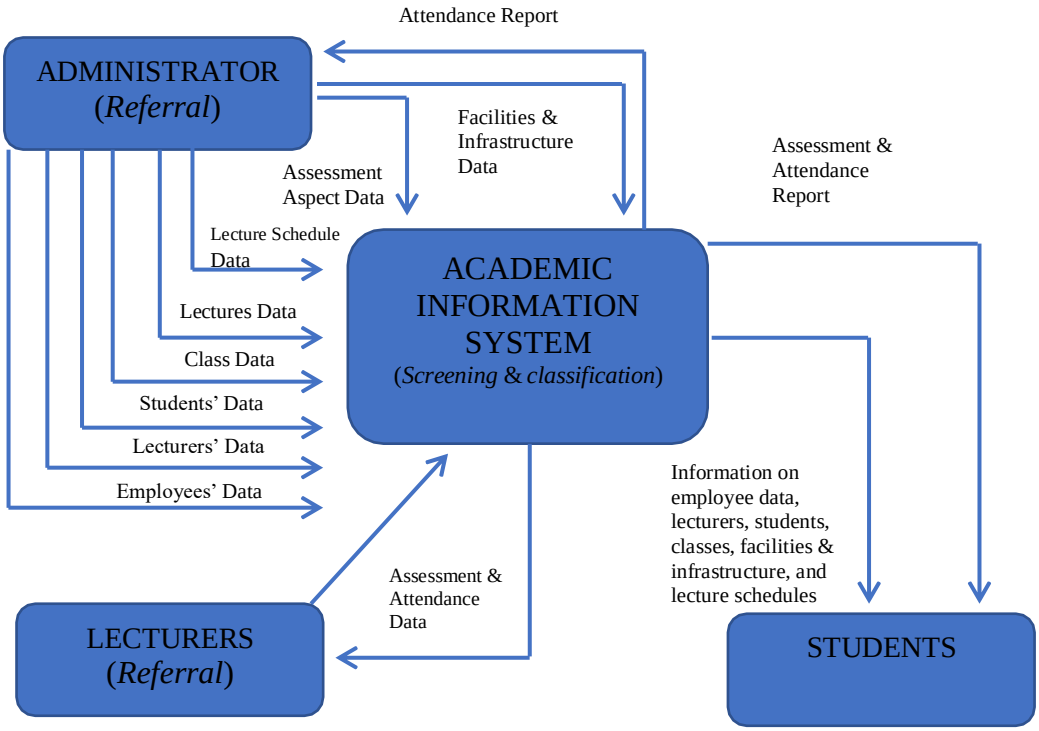


**Figure 2. Implementation of the Academic Information System**

Evaluation (Check) in the management of academic information systems at this evaluation stage, the researcher must determine what fields will be evaluated. Evaluation of the information system for improving academic services is carried out at the Bureau of Academic and Student Administration (BAAK), focusing on the educational service process. Where the educational service process in the Academic Administration Bureau has the task of providing technical and administrative services in the academic field within the university environment, the Academic Administration Bureau uses several auxiliary applications. IT internal parties build supporting applications. Until now, the implementation of the application has not been evaluated to ensure alignment with the objectives of IT academic information system management.

The process of data analysis coincides or rotates, which means that in the data analysis process, starting from data collection to data analysis itself, the data analysis process can be described as follows: According to Miles and Huberman stated that 'qualitative data analysis uses words that are always arranged in an expanded or described text. When giving meaning to the data collected, the data is analyzed and interpreted (Ghony & F., 2014). Evaluation in information systems is a systematic and continuous process in collecting, interpreting, narrating, and presenting various information about a program that can be used for decision-making, policy formulation, and program development in the next step. Supervision or control of information systems is a process of determining what is being and will be achieved, the standards used or as guidelines in carrying out supervision, performance evaluation, and, if necessary, corrective action from deviations so that performance goes according to plan.

Follow-up (Act) In the act is the stage to take the necessary actions on the check results. By following up or implementing a

comprehensively improved solution, two types of actions must be taken based on the results achieved between others: "(1) Corrective Action, namely in the form of action solutions to problems encountered in achieving the Target. The corrective action must be taken if the results do not meet the achievement targets, and (2) Standardization Actions, namely actions to standardize the best practices or methods that have been taken. This standardization action is carried out if the target results are achieved according to what has been set. The cycle will return to the Plan stage to make further process improvements so that there is a continuous process improvement cycle."

Based on the process flow of planning, implementation, up to the time of evaluation, the follow-up to the development of academic information systems at universities can be implemented from the information system governance process where information technology at universities will be empowered if accompanied by policies that can improve the operationalization of roles and functions. that information technology. Coherence of technology, work units, human resources, and regulations should be carried out consistently.

## CONCLUSION

By analyzing each previous section, it can be concluded that the system running at UNAMA and IAI Tebo universities so far has been carried out manually with the help of computer technology. However, the system has been able to provide academic information, both for the benefit of education management and customer satisfaction. Data and information valid The effectiveness of the implementation of the Academic SIM using the Academic Information System (SIAKAD) as a whole are 83.21% of the expected criteria. Meanwhile, based on the dimensions of the effectiveness of the information system, the results are system quality (system quality) of 86.67%, information quality of 83.00%, and service quality of 76.67%.

The implication obtained as a future agenda from this finding is that the research can be carried out in different places with a broader objective. It should be carried out for further research in all public sector agencies. Further research can also expand the model developed in this study to determine the effect of information systems on individual performance, for example, by including user satisfaction variables. In addition, academics and researchers need to prove the Theory of Reasoned Action, Technology Acceptance Model, Task Technology Fit, and Technology-to-Performance Chain in the public sector.

## REFERENCES

B, L. R., & Mclaughlin, J. J. (2015). Assessing Special Student (Second Edition). New York: Merril Publishing Company.

Benneyan, J. C., & Chute, A. D. (1993). SPC, process improvement, and the Deming PDCA circle in freight administration. Production and Inventory Management Journal, 34(1), 35. Google Scholar

Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approach. Sage publications. Google Scholar

Fatih, M. D. (2017). Analisis Kesuksesan Implementasi Sistem Informasi Akademik (Siakad) Online Berbasis Web Pada Universitas Jambi:(Dari Perspektif Mahasiswa Sebagai Pengguna). Jurnal Ilmiah Ilmu Terapan Universitas Jambi| JIITUJ|, 1(2), 142–153. Google Scholar

Ghony, D., & F., A. (2014). Metodologi Penelitian Kualitatif. Yogyakarta: Ar-Ruzz Media. Google Scholar

Koontz, H. C., O'Donnel, Y., & Weihrich, H. (1986). Manajemen. Jilid 2. Terjemahan: Gunawan Hutauruk. Jakarta.

Prasojo, L. D., & Riyanto, T. I. P. (2011). Teknologi Informasi Yang Wajib Dikuasai Pemula. Yogyakarta: Gava Media. Google Scholar

Robbins, S. P., & Coulter, M. (1999). Management (Ed ke-6). Jakarta: PT Prenhalindo.

Sevima. (2020). 6 Metode Pembelajaran Paling Efektif di Masa Pandemi Menurut Para Pakar. Retrieved from https://sevima.com/6-metodepembelajaran-paling-efektif-di-masapandemi-menurut-para-pakar/

Sugiyono. (2019). Metode Penelitian. Bandung: CV Alfabeta.