STRATEGY FOR THE EFFECTIVENESS OF THE IMPLEMENTATION OF ACADEMIC INFORMATION SYSTEMS IN COLLEGE IN EFFORTS TO IMPROVE INFORMATION QUALITY

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ABSTRACT

Information systems research success has begun to decline in the past few years, but existing research is still inaccurate in its definition and in the factors that involve the information system success. This research has designed to analyze, study, and find out the performance from implementing academic information systems in universities in an effort to improve the quality of information. The research was conducted using a qualitative approach and case studies, namely problem formulation, study proposition, analysis unit, data linkage to the proposition, the criteria for interpreting the findings and making conclusions and recommendations. From the results of the research data analysis, several conclusions were obtained, namely, the academic information system running in universities has not met expectations. The performance of academic information systems that can support the smooth operation of the universities is not well understood. It is necessary to formulate an optimal academic information system strengthening strategy that can support the smooth operation of the universities.

Keywords: Quality System; Information Quality; Service Quality; Information Security

RESEARCH HIGHLIGHTS

For organizations, one of the most important needs today is information systems (IS). The success of organizational today is highly dependent on the degree to which information systems governance is implemented (Indriani & Marlindawati, 2016).

Success in implementing an information system in an organizational management, in this case a college, has several inhibiting factors. (Mustakini, 2005) argued that the failure in the implementation of information systems is divided into technical and non-technical aspects.

Can be seen in table 1 below is a description of the effectiveness of the information system used by one of the tertiary institutions,

| Table 1. College Academic Information System Users |
|---------------------------------|--------|--------|--------|--------|--------|
| Variables                      | 2015   | 2016   | 2017   | 2018   | 2019   |
|                                | Total  | Access | Total  | Access | Total  | Access | Total  | Access |
| Faculty Full Time              | 81     | 71     | 83     | 79     | 90     | 79     | 93     | 83     | 97     | 75     |
| Faculty Part Time              | 192    | 106    | 196    | 120    | 209    | 119    | 247    | 103    | 243    | 120    |
| Staff                          | 82     | 29     | 85     | 38     | 85     | 35     | 92     | 35     | 93     | 31     |
| Student (Bachelor)             | 831    | 592    | 983    | 687    | 1124   | 664    | 1202   | 632    | 1549   | 454    |
| Student (Postbachelor)         | 1644   | 728    | 1717   | 1045   | 2233   | 914    | 2294   | 857    | 2304   | 889    |
| Total                          | 2830   | 54%    | 3064   | 64%    | 3741   | 48%    | 3928   | 44%    | 4286   | 37%    |

Based on that table, it can be seen that along with the increase in the number of users in the higher education institution, it is not accompanied by an increase in the effectiveness of existing users based on the total number of accesses from year to year.

Research Objectives

Information systems determines the current organizational life cycle in the era of science and technology (Subiyakto, 2017). It is important to evaluate the performance of each system that has been implemented in order to understand the quality of the system's
success in achieving the objectives previously set (Prasti, 2018). In the research conducted (Setiawan & Yulianto, 2017), integration of business functions is obtained through the Information System / Information Technology Master Plan (IS / ITSP) model.

One of the new regulations implemented by the Ministry of Education and Culture during the Covid-19 pandemic is an online learning system carried out at various levels of education. Based on the statement of the Minister of Education and Culture of the Republic of Indonesia (2019), "School digitization is a new breakthrough in the world of education by utilizing developments in information technology in various aspects of teaching". School digitization is the main program that the Ministry of Education and Culture will undertake in 2021.

The propositions raised in this study are as follows:

1. Improvement of the system quality from the academic information system.
2. Improvement of the information quality from the academic information system.
3. Improving the quality of higher education services with an academic information system.
4. It is necessary to increase awareness of information security in higher education.

From the conclusion of the proposition above, it is necessary to formulate a strategy to raise the effectiveness from the academic information system in universities in an effort to improve the quality of information.

**Methodology**

This research use Literature Review Method as the methodology. The reason for using this method is because this study aims to solve dynamic problems by utilizing previous research in the form of papers, journals, or books. The process of the Literature Review method can be seen in Figure 1 below.

![Figure 1: Literature Review Process](https://via.placeholder.com/150)

**Results**

To improve the quality of this system will use parameters from previous research sourced from (Jogiyanto, 2007). The parameters for measuring the quality of an information system include access convenience, system flexibility, system integrity, and response time.
To improve the quality of this information will use parameters from previous research sourced from (Susanto, 2015). The parameters for measuring the quality of information in an information system are accurate, relevant, timely, and complete.

The parameters used to study to improve the quality of this service will use parameters from previous research sourced from (Tjiptono & Chandra, 2011). It is said that the parameters for measuring the service quality of an information system include reliability, responsiveness, assurance, empathy, and physical evidence.

To increase information security awareness at higher education institutions, will use parameters from (McLeod Jr & Schell, 2008). In this study, a strategy will be formulated to increase information security awareness in tertiary institutions in accordance with the three basic principles presented by (McLeod Jr & Schell, 2008) namely confidentiality, integrity, and availability.

**Findings**

The quality of academic information systems in tertiary institutions still needs to be improved in quality of systems, information, and services. Besides that, the awareness of tertiary institutions and academic system implementers of information security can also be said to be lacking. To improve the quality of the system, improvements can be made to the parameters of access convenience, system flexibility, system integrity, and response time. Improving the quality of information by applying accurate, relevant, timely and complete parameters. Improving service quality by applying parameters of reliability, responsiveness, assurance, empathy, and physical evidence. Increasing awareness of information security by applying the parameters of confidentiality, integrity, dan availability.

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**References**


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